[re]Think High School
DEAR STUDENTS AND PARENTS:

The Joseph M. Barry Career & Technical Education Center (Barry Tech) provides high school students with the opportunity to explore their careers of choice and develop skills to become leaders of the 21st century. The caring, experienced staff motivates our students to reach their highest potential. Students are challenged academically, theoretically, and practically, while engaging in hands-on experiences.

As you thumb through our course catalog, you’ll see that we are not only one of the most advanced, innovative Career and Technical Education Centers in New York State, but we are also on the forefront of environmental thinking. Our future is at stake, and our courses will teach you, our future leaders, how to [re]Think our environment by using innovative sustainability ideas.

Together with our industry partners, we provide work-based learning programs through Co-ops, internships, and clinic rotations. Our College Center works with career institutes and colleges to provide the opportunity to earn articulation agreement credits, which can be used for post-secondary advancement at 2- and 4-year colleges and technical schools.

We offer an assortment of leadership activities, including SkillsUSA, Future Farmers of America, and Student Ambassadors. Additionally, you will have the opportunity to participate in community service activities, such as Habitat for Humanity, and our blood, food, and animal food drives. Accomplishments are highlighted at the Annual Fashion Show, National Technical Honor Society (NTHS), Certificate Ceremony, and Outstanding Student Awards, as well as local, state, and national competitions.

To learn more about the exciting world of Barry Tech, visit our website at www.barrytech.org, contact your high school guidance counselor to attend our “Taste of Tech” days, or call the Barry Tech office at 516-622-6812 to set up a tour.

Sincerely,

Mr. James Clark,
Principal

CALLING ALL PARENTS...

Contribute to your child’s success by going online to www.barrytech.org.

Just click on the “Info for Parents” link for the most up-to-date information about your child’s academic success including attendance records, progress reports, report cards, and homework assignments.

Get involved!
Talk to your child about the school day and attend important meetings.

For more information—or to join the Parent Council—call Barry Tech Principal James Clark, at 516-622-6801 or email jclark@mail.nasboces.org.

[QR code for online information]
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Summer Tech @ Barry Tech

Summer Tech Academies are offered in July in 2-week blocks. Transportation to and from Barry Tech is not provided. As this is not a high school, credit bearing district subscription program, but rather a “summer camp”, tuition fees are paid by parents to the home district. Parents: Look for flyers and information on the Barry Tech website for enrollment and payment information.

Possible Academies include:
Auto Technology • Careers in Veterinary Medicine, A–Z • Culinary Arts Electrical Exploration • Graphic Imaging and Printing • Police Science

For more information, call the Barry Tech Guidance office at: 516-622-6812

[re]Think the Environment
At Barry Tech, students are taught how they all have a role in the future of this earth. Therefore, greening and sustainability have become a big part of our curriculum.

When you see this symbol next to a course title, you can be assured that you will be taught about greening, sustainability, and the new technology and systems that will help us all to keep our world safe for future generations.

Our Sustainability and Greening Model

Resources
• Manage our resources—Reduce, reuse, recycle.

Planet
• Sustainability of our earth.
• Satisfy our needs without depleting resources.
• Stabilize the economy.
• Preserve natural resources.
• Protect ecosystems.
• Biodiversity.

People
• Maintain safety and comfort.
• Increase productivity.
• Preserve our quality of life.

**This catalog is printed on recycled paper.**
SkillsUSA: This national student organization helps students develop leadership skills through involvement in a wide variety of activities and competitions.

National Technical Honor Society (NTHS): Membership in the NTHS, America’s highest award for excellence in career and technical education, is based on academic achievement, community service, and teacher recommendations.

Honor Roll: Students with an average of 85% or higher, can be eligible for Honor Roll. Honor Roll students with a 90% average can earn High Honor Roll status.

Student of the Quarter: Each teacher selects one student whose work ethic and class participation go above and beyond to be Student of the Quarter.

Outstanding Student Award: Our Students of the Quarter are considered for the Outstanding Student Award, presented at the Certificate Ceremony.

Vanguard Students: Students wanting to pursue “non-traditional” careers or careers underrepresented by their gender are supported and encouraged.

George Farber Award: One student of excellence from every Nassau BOCES school is chosen each year to receive the George Farber Award, named after our late Board President.

Career Specific Awards and Scholarships: Many business councils, professional organizations, and employers offer awards and scholarships to students who excel while at Barry Tech.

Student Ambassadors: Students who, by their performance in the classroom and the workplace exemplify success, are invited to be Student Ambassadors, sharing their Barry Tech experiences with incoming students and serving as guides at orientation and Taste of Tech.

Peer Mediation: Occasionally conflicts arise during the school day. We encourage our students to train to mediate disputes, empowering them to resolve conflicts in a pragmatic, peaceful manner. These skills last a lifetime.

Community Service and Service Learning: A Barry Tech hallmark is encouraging students to participate in community service as part of their “service learning” curriculum. This fulfills local district community service requirements.

Future Farmers of America: Vocational agricultural students participate in competitions.

Student Government: Each year, our students run for offices similar to Student Council in their home high schools.

Leadership Events: Our networking and social events build and encourage friendships and teaming between and among various CTE programs and Nassau County districts.

Pupil Personnel Services (PPS)
The guidance team, psychologist, and office secretaries create the bridges between Barry Tech and home high schools, parents, and a variety of support services for students. PPS ensures that all students enter programs that meet their interests, abilities, and goals for completing high school and for the future. The team also serves students with disabilities and English Language Learners.
WHEN TO APPLY

The best time for students to submit their applications is in 10th grade when they are planning their 11th-grade courses in January/February.

To ensure a seat in the course, applications for enrollment in September 2012 should be received by the Nassau BOCES registrar, with all corresponding paperwork, by April 1, 2012.

Barry Tech will consider applications received after April 1, throughout the summer, and at the beginning of the school year on a first-come, first-served basis. (Please be aware that students’ first choice of courses may be unavailable due to class size limitations.)

Regular career education courses are for students who:

• achieve at grade level.
• have completed many of the graduation requirements for a Regents diploma.
• work well in a class of 20–25 students.
• plan to seek further education or employment in their chosen fields after graduation.

Intensive Skills Courses are for special-needs students. These courses:

• provide individualized instruction and support.
• help students develop the character traits necessary for successful employment.
• prepare students for employment or career training after high school.
• meet all state-mandated requirements for career education.
• review Individualized Education Program (IEP) requirements as part of the enrollment process.
• offer class sizes of 15 students with 1 teacher and 1 teacher aide.

Counselors: Apply online @ www.barrytech.org
The business world is completely in tune with the consumers’ interest in conservation and environmentally efficient technology. Learn how to run a business with an eye toward the future.
**business service skills**

In this course, students will learn all the skills necessary for working in a technology-oriented environment. They will receive individualized instruction in computer skills, business document formatting, business math, filing techniques, mail room skills, and telephone usage and etiquette. They will be introduced to office technology, including the basics in word processing, spreadsheet, and database software. Students will also learn to use copy and fax machines.

*Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.*

- Students will develop professional skills including:
  - time management
  - teamwork
  - interpersonal relations
  - effective communication
  - personal and professional management

Young trainees will learn how to:
- prepare and edit letters, memos, tables, columns, and reports
- compute payrolls with overtime and commission
- keep an inventory using spreadsheets

**career opportunities**

Upon graduation, students will be adept in typical office practices and employable in many different industries. Typical business service job titles include receptionist, file clerk, mail clerk, and data entry clerk.

**work experience opportunities**

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- American Diabetes Association
- Lohrius Blueprint Company
- Nassau County Department of Public Works
- Nassau County Office of Consumer Affairs
- Sears Repair Center

Course available: Grades 11 or 12  
Placement: Skills  
Course length: 1 or 2 years  
Credits: Up to 4 CTE credits a year

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:*

1.0 credit  Career and Financial Management

* Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.
retail skills

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:

1.0 credit  Career and Financial Management

Course available: Grades 11 or 12
Course length: 1 or 2 years
Credits: Up to 4 CTE credits a year

earning high school credits

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:

During this course, students will have the opportunity to help run a school retail store. Students will learn about entrepreneurship, management, marketing, and economics. This course is limited to 15 students and is taught by 1 teacher and 1 teacher aide.

Beginning retailers will learn how to:
- develop marketing materials
- create store displays
- monitor inventory and stock
- order from vendors
- use a cash register
- prepare and serve food

Each student will:
- learn loss prevention techniques
- develop customer service skills
- create a resume
- write a cover letter
- learn interview skills
- practice professional conduct

Career and Financial Management

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Beginning retailers will learn how to:
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Each student will:
- learn loss prevention techniques
- develop customer service skills
- create a resume
- write a cover letter
- learn interview skills
- practice professional conduct

career opportunities

Students who successfully complete this course will be qualified to seek entry-level positions in the retail services industry that allow for continued personal and professional advancement based on their desires and abilities. Some graduates choose to attend continuing education programs to increase their skills. Typical job titles in retail include customer service representative, sales representative, cashier, inventory clerk, store manager, and stock person.

work experience opportunities

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- CVS/Pharmacy
- DSW Shoe Warehouse
- Joe’s Corner Store
- Trader Joe’s
- Walgreens
The world of healthcare is developing new technologies to improve patient care and the quality of life, as well as respond to environmental challenges. Learn how to give quality care to those in need in this quickly changing field.

Now, more than ever, the healthcare field is deeply entrenched in moving toward advancements in sustainable, green technology. In creating a new system of healthcare for the 21st century, services, whether in doctors’ offices, clinics, hospitals, or at home, will rely on telecommunications and computer-controlled devices.

High definition images will replace X-rays, and will be filed and shared electronically as well as in real time — while the tests are actually being taken. Shelves and shelves of patient files will be computerized, eliminating paper files. Emphasis will be placed on the use of environmentally safe materials, technology and products, as well as on modern systems for waste disposal, and efficient wireless and portable devices.

“[re]Think the Environment

“The industry is becoming a ‘paperless’ system. There’ll be one record as the patient moves within the healthcare system... Even prescriptions will be sent electronically,” said Dr. Pranav Mehta of the North Shore-Long Island Jewish Health System in a Newsday article.

Due to a larger and aging population, the healthcare fields will be growing at a rapid pace. At Barry Tech, classes are hands-on, and students are taught about the real world of healthcare, better preparing them for college studies, certifications, licenses, and careers in this all-important industry.
health services

certified personal trainer – exercise science
dental assisting
health skills

medical assisting
nurse assisting
pharmacy technician
physical therapy aide
This course is the most comprehensive and cutting edge of its kind, preparing students for this emerging career. The New York State Department of Labor identified this career as one of New York State’s “top 25 emerging occupations through 2016.” Students learn the systems of the human body and their interrelationship to health, fitness, exercise, nutrition, strength and conditioning, fitness assessment, and designing exercise programs for the athlete, general, and special populations. Students will learn principles necessary to differentiate facts from fallacies as they relate to the human body, exercise, and nutrition. This comprehensive course integrates classroom work with practical hands-on personal training/health and fitness skills. Successful completion of the course will prepare students to earn nationally accredited certification from the Academy of Applied Personal Training Education (AAPTE) and/or the American Council on Exercise (ACE).

Students will learn:
- anatomy and physiology of human performance
- the human body and its relationship to exercise mechanics
- exercise program design for strength, endurance, and cardiorespiratory fitness
- designing a weight management program through exercise and nutrition

work experience opportunities
Students who meet eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days/internships, or paid Co-Op experiences at workplace sites.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution, and any additional criteria that may have been established. Current college agreements include:
- Mercy College (Dual Enrollment)
- Monroe College

This coursework builds a solid foundation for educational and career interests such as athletic training, physical education, sports medicine, nutrition, exercise psychologist, and associated, allied health careers.

career opportunities
Upon successful completion of this course and certification exam, students will be qualified to seek employment as a nationally accredited certified personal trainer in the health and fitness industry. This profession allows for flexible schedules and the advancement for continued personal, professional, and academic advancement. Typical job titles include certified personal trainer and strength and conditioning coach. Workplaces include gyms, health clubs, fitness studios, in-home training, schools, and assisted living facilities.

The course is available for Grades 11–12 with Regular placement. Credits are up to 4 CTE credits a year. Placement: Regular. Course length: 2 years. Credits: Up to 4 CTE credits a year.

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using either or both of the following:
- 1.0 credit Career and Financial Management
- 0.5 credit Health

Students earning high school credits

[re]Think the Environment
Learn how nutrition impacts the environment and personal health.
**Course available:** Grades 11–12  
**Placement:** Regular  
**Admissions criteria:** Satisfactory completion of Living Environment and strong reading skills

**Course length:** 2 years  
**Credits:** Up to 4 CTE credits a year

**dental assisting**

*This course is certified by New York State.*

Note: In the second year, this course requires students to wear uniforms and to complete physical exams before participating in clinical rotations.

**earning high school credits**

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:

<table>
<thead>
<tr>
<th>Credit</th>
<th>Course</th>
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<tbody>
<tr>
<td>1.0</td>
<td>Career and Financial Management</td>
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<tr>
<td>1.0</td>
<td>English</td>
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<tr>
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<tr>
<td>1.0</td>
<td>Science</td>
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<tr>
<td>0.5</td>
<td>Health</td>
</tr>
</tbody>
</table>

Students will learn the skills needed to assist in all phases of dentistry, from taking X-rays to four-handed chairside assisting, and will have the opportunity to complete a clinical rotation and assist in actual dental procedures. Through hands-on experience, students will develop skills as receptionists, office managers, chairside assistants, and learn how to use personal computers for patient records, billing, and correspondence. Students will have the opportunity to work with new technology in digital radiography.

Dental assistants will learn the essential clinical skills that include:

- assisting in dental procedures
- handling dental/medical emergencies
- CPR
- instructing patients how to properly brush and floss
- preparing restorative and impression materials
- infection control and sterilizing techniques
- taking, processing, and mounting X-rays
- following Occupational Safety and Health Administration guidelines and universal precautions
- maintaining computerized dental records

**career opportunities**

Students who take the complete 2-year, 900-hour course will be eligible to fulfill the New York State Dental Assisting Certification requirements. Many graduates attend college to pursue further education in dental hygiene, dentistry, or other health-related professions, and often use their skills to help pay expenses. Typical job titles in the field of dentistry include dental assistant (in private practice, hospitals, or dental clinics), office manager, receptionist/bookkeeper, and dental product representative.

**college agreements**

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution, and any additional criteria that may have been established. Current college agreements include:

- SBI Campus, an affiliate of Sanford-Brown

**work experience opportunities**

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Nassau University Medical Center (NUMC)
- Uniondale General Dentistry
- Wantagh Dental Arts
In this course, students will learn the skills needed to prepare for basic, entry-level jobs in a variety of health-related occupations. They will study anatomy, physiology, and microbiology, and learn to understand and implement universal precautions. Students will also develop effective communication skills and the ability to work in a team environment. Computer modules are incorporated into class work.

Students will be trained in:
- sterilizing procedures and infection control
- patient wheelchair transport
- bed to wheelchair transfer
- preparing an open/closed hospital bed
- taking and recording pulse, blood pressure, and temperature
- measuring height and weight
- understanding nutrition and special dietary needs
- body mechanics
- anatomy and physiology

**health skills**

* Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.

Note: This course requires students to wear uniforms and to complete physical exams before participating in clinical rotations.

**course available:** Grades 11 or 12  
**Placement:** Skills

**earning high school credits**

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits* using either or both of the following:
- **1.0 credit**  Career and Financial Management
- **0.5 credit**  Health

**career opportunities**

Upon completion of this course, students will be able to work in several non-licensed entry-level positions in hospitals, clinics, dietary departments, adult day treatment centers, and nursing homes. Graduates may opt to attend a post-secondary institution or college to continue their education in a health career field. Typical job titles in healthcare include transport assistant, transporter, bed and bath team member, hospital bed maker, adult day treatment counselor, patient communicator, and dietary aide.

**work experience opportunities**

Students in this course reinforce their skills in a supervised, clinical environment at a hospital or nursing home.

Those who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days and internships, at workplace sites such as:
- Woodbury Center for Health Care

**Course available:** Grades 11 or 12  
**Placement:** Skills

**Course length:** 1 or 2 years  
**Credits:** Up to 4 CTE credits a year
medical assisting

This course is certified by New York State.

Note: In the second year, this course requires students to wear uniforms and to complete physical exams before participating in clinical rotations.

career opportunities

Medical Assisting is one of the fastest growing fields in the U.S. today. With the increasing demand for healthcare and the growing changes in the medical field, the role of the medical assistant has expanded and made medical assistants in high demand. Students who complete this course will be qualified to work in a variety of entry-level positions such as clinics, emergent care centers, health centers, hospitals, physician’s offices, medical labs, public health systems, schools, and blood banks.

At the end of the second year of this program, qualified students in good standing have the opportunity to sit for the American Association of Allied Health Professional’s Medical Assisting Certification exam. Those who pass and graduate from high school will receive their certification in medical assisting.

This course offers an excellent foundation for college-bound students interested in health careers such as pre-med, scientific or medical research, physician’s assistant, nursing, medical tech, EMT, pharmacology, respiratory therapy, radiology, physical therapy, lab technology, and medical office administration. Typical job titles in this field include medical assistant, medical receptionist, office assistant, ICD-9-CPT coder, medical biller, and nurse.

college agreements

Upon completion of this course, students may receive college credits subject to entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

- Mercy College
- SBI Campus, an affiliate of Sanford-Brown
- SUNY Farmingdale

work experience opportunities

Students who reach all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Nassau University Medical Center (NUMC)
- RSC Cardiology/North Shore LIJ
- The office of Dr. Sharon Deans
- Winthrop University Hospital

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong science background with above-average academic skills. A background check may be required for internship settings.

Through extensive hands-on instruction, students will acquire skills to assist doctors in all phases of medicine and skills needed for medical and allied health careers. They will use 21st century skills to learn vital signs, blood pressure, infection control, instrument and tray set ups, professional communication, law, and ethics. They will learn to use computerized EKG machines, specimen collection, urology testing, and throat culture. Computer applications are also part of the curriculum.

Potential medical assistants will learn skills such as:

- conducting hearing and vision screenings
- performing allergy and immunization tests
- preparing and administering oral and parenteral medications
- assisting in physical and gynecology exams
- instrument identification
- phlebotomy and capillary puncture

They will be instructed in:

- 21st century healthcare
- anatomy, physiology, and nutrition
- medical terminology
- human growth and development
- CPR, first aid, and emergency preparedness
- sterilization techniques
- patient preparation
- medical specialties
- diagnostic imaging

earning high school credits

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:

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<td>0.5</td>
</tr>
</tbody>
</table>

By the end of the second year, students will have earned up to 8 CTE credits or distributed credits. This course offers an excellent foundation for college-bound students interested in health careers such as pre-med, scientific or medical research, physician’s assistant, nursing, medical tech, EMT, pharmacology, respiratory therapy, radiology, physical therapy, lab technology, and medical office administration. Typical job titles in this field include medical assistant, medical receptionist, office assistant, ICD-9-CPT coder, medical biller, and nurse.
Healthcare careers are in great demand in the 21st century. Students in this course will develop the skills and understanding needed to care for patients/residents in various healthcare facilities. They will be able to apply the skills learned in a supervised clinical setting, taking their first step on the career ladder of the nursing profession. The nurse assistant’s responsibilities are centered around all bedside care under the direction of the registered nurse (RN) or licensed practical nurse (LPN). Student nursing assistants will learn patient care skills, infection control principles, safety measures, and proper communication techniques, as well as the proper use of all types of equipment used in healthcare facilities. Students will learn about the human body and how to care for patients/residents with various medical conditions. Critical thinking and problem-solving skills will be learned as well as organizational and time management skills. Students will learn about diversity in the workplace, and how to treat patients/residents with respect and dignity. Students will learn basic nursing care as well as specialized care (e.g., care given to patients/residents with sensory impairments and speech impediments, as well as changes in nutritional needs.)

After two years students will have the knowledge and skills necessary to take the New York State Certified Nurse Assistant (CNA) exam.

Students will practice the essentials of patient care, including:

- taking vital signs
- transferring and positioning of patients
- bed making
- assisting with physical exams

Students will learn about:

- anatomy and physiology
- medical terminology
- nutrition and fluids
- growth and development, geriatrics
- CPR, first aid, and common health issues
- 21st century healthcare changes
- hearing, speech, and vision problems

**Career Opportunities**

Nurse assistants are in great demand in today's world. Graduates may work in a hospital, nursing home, home care agency, adult home, clinic, or assisted living facility.

After completion of 900 hours of instruction (including 108 in a nursing home and hospital setting), students may take the NYS Nurse Assistant Certification exam. Those who pass are qualified for employment as certified nurse assistants. Graduates can continue study in nursing or pre-med, leading to licensure as an LPN, RN, or a Bachelor of Science in Nursing. Typical job titles are nursing assistant, geriatric aide, home health aide, hospital orderly, nurse’s aide, rehabilitation aide, and personal care aide.

**College Agreements**

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria necessary. Current college agreements include:

- Fulton-Montgomery Community College
- Mercy College (Dual Enrollment)

**Work Experience Opportunities**

In this course, students will have the opportunity to participate in a supervised clinical rotation in a nursing home and a hospital setting.

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Bristal Assisted Living
- North Shore-LIJ University Hospital (Plainview and Syosset)
- Winthrop University Hospital
- Woodbury Center for Health Care

This course is certified by New York State.

Note: This course requires students to wear uniforms and to complete physical exams before participating in clinical rotations.
course available: Grades 11 or 12
placement: Regular
Admissions criteria: Strong basic math background

Earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits* using either or both of the following:
1.0 credit Career and Financial Management
0.5 credit Health

Career opportunities
Due to the increased medical needs of a larger and aging population, employment is expected to grow faster than average for all pharmaceutical occupations. According to the U.S. Department of Labor Statistics, employment of pharmacy technicians and aides is expected to increase by 25 percent from 2008 to 2018, which is much faster than the average for all occupations. Cost-conscious insurers and healthcare systems will continue to emphasize the role of the technician.
Pharmacy technicians may work in a variety of settings, including retail pharmacies, hospitals, chain drugstores, nursing homes, mail order facilities, and nuclear medicine.
Note: In New York State, special training and licensure are not necessary to work in a pharmacy. However, in some states, pharmacy techs are required to pass the National Pharmacy Technician Certification exam.

Work experience opportunities
Students have the opportunity to reinforce what they are taught in the classroom by participating in a work-based learning or clinical experience at a healthcare facility or pharmacy such as:
• Nassau University Medical Center (NUMC)
• Walgreens
• various independent pharmacies such as Parkside Pharmacy and Shipmans Pharmacy

In this course, students will develop the skills needed to perform the tasks of a pharmacy technician. They will study medical and pharmaceutical terminology, learn pharmacy recordkeeping and pharmaceutical techniques, explore pharmacy law and ethics, learn how to make pharmaceutical calculations, and develop communication skills. Students will also gain practical experience by working in actual pharmacies.

Young pharmacy techs will learn how to:
• prepare prescribed medication for patients
• count tablets and measure liquids
• label bottles
• verify the accuracy of prescription information
• price and file prescriptions
• establish and maintain patient profiles
• prepare insurance forms
• track the inventory of medications
• compound prescriptions
• weigh and measure prescription ingredients

College agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria necessary. Current college agreements include:
• Monroe College
Physical therapy helps patients regain function and improve mobility, relieve pain, and prevent permanent physical disabilities by restoring, maintaining, and promoting overall fitness and health. This entry-level course will prepare students to become part of a rehabilitation team. Students will assist in performing patient positioning and range-of-motion exercises while developing an understanding of both applications. Students will learn theoretical concepts and practice skills, then move into a patient care setting where they will gain firsthand experience with patients and hone their skills.

Therapy aides-in-training will learn:
- anatomy and physiology
- medical terminology
- how to measure vital signs
- range-of-motion exercises
- use of canes, crutches, and walkers
- massage therapy
- hot packs/ice applications
- stretches/strengthening exercises
- whirlpool therapy
- fitness, nutrition, and weight control
- office duties

### Career Opportunities

Students who complete this course are eligible to obtain certificates of completion from Barry Tech and are employable as physical therapy aides. Graduates will be prepared for employment as non-licensed workers, performing tasks under the supervision of professionals within a rehabilitation team and working closely with physical therapists, physical therapy assistants, chiropractors, and occupational therapists.

Physical therapy aides may work in a variety of settings including nursing homes, pediatric centers, hospitals, private practices, adult day treatment programs for the physically and mentally challenged, and in non-traditional settings where a physical therapist and occupational therapist are employed. Many graduates continue their education and pursue an associate or bachelor’s degree in physical therapy, occupational therapy, massage therapy, or other health-related service careers. Typical job titles in the field of physical therapy include physical therapy aide, rehabilitation aide, and occupational therapy aide.

### College Agreements

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

- Mercy College (Dual Enrollment)
  - 3 credits per year*
- Nassau Community College

* These credits can be transferred to any college in attendance in the future.
auto collision technician
auto skills
automotive technology
aviation operations
carpentry
computer network technology
computer technology
construction electricity

construction trades
construction trades skills
NEW green technology and alternative energy
network cabling technician/home technology integration (HTI)
plumbing
small engine repair
welding
This course provides practical instruction in basic auto body repair, and moves on to advanced techniques and technology. In the second year, students estimate repair costs on all vehicles, do all the repairs for actual customers, and are expected to meet or surpass industry standards.

This program integrates environment sustainability and current health issues into the curriculum through lessons on specific regulations for the control of hazardous air pollutants. Students will learn NYSDEC/EPA regulations regarding paints and equipment. New, more environmentally friendly paints and processes are also integrated into the curriculum.

Upon completion of this course, students may earn up to 4-CAR (Inter-Industry Conference on Auto Collision Repair) points.

Students will learn how to:
- use auto body plastics
- work with specialized equipment and spray paints
- restore cars to their original condition
- customize (an increasingly popular part of the field)

They will also learn techniques in:
- sheet metal straightening
- sheet metal alignment
- plastic repair
- painting and refinishing
- compounding and polishing
- diagnosing and measuring damage
- estimating repairs

This course is certified by New York State.

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using either or both of the following:
1.0 credit Career and Financial Management
1.0 credit English

Upon completion of this course, students may earn up to 4-CAR (Inter-Industry Conference on Auto Collision Repair) points.

career opportunities
This 2-year course will prepare students for an entry-level position in the auto body industry. Graduates who enroll in college may pursue studies in automotive design, commercial art, or engineering, and often use their skills to help pay expenses. Typical job titles in this field include automotive detailer, insurance adjuster, masker/helper, parts counterperson, repair shop owner, shop foreperson, service manager, custom spray painter, and antique car restorer.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Baran Institute of Technology
- New England Institute of Technology (NEIT)
- Ohio Technical College
- SUNY Alfred State

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Castle Collision
- Keri Coach Collision Center
- Kidd Collision

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong gross and fine motor coordination and attention to detail.

Course length: 2 years
Credits: Up to 4 CTE credits a year

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using either or both of the following:
1.0 credit Career and Financial Management
1.0 credit English

course available:
Grades 11–12
Placement: Regular
Credits: Up to 4 CTE credits a year

auto skills

Course available: Grades 11 or 12
Placement: Skills

Course length: 1 or 2 years
Credits: Up to 4 CTE credits a year

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits*
using any or all of the following:
1.0 credit  Career and Financial Management
1.0 credit  English
1.0 credit  Math
1.0 credit  Science–Specialized

In this course, students will progress from basic to advanced skills in the automotive technology field. Students will receive a basic introduction to automotive careers, learn about certifications, and practice using basic hand and power tools, as well as other equipment, such as an oxygen/ acetylene torch. Students will learn suspension and steering work, including inspecting and replacing shock absorbers and MacPherson struts, and identifying the parts of a rack and pinion system. Cooling systems, basic electrical systems, and engine performance will also be covered. This course stresses proper dress code, punctuality and responsibility. Many of our students will compete in industry-based competitions.

Auto Skills is a National Automotive Technicians Education Foundation (NATEF) certified program. All of our instructors are Automotive Service Excellence (ASE) certified.

Using the tools and equipment of the trade, young mechanics will learn how to:
• jack and support a vehicle
• remove and replace exhaust systems, disc and drum brake systems, and brake shoes
• machine cut discs and drums
• balance and rotate tires
• balance wheels
• remove a tire from a rim using a tire changer
• perform general maintenance, including oil and filter replacement, chassis lubrication, and fluid level check

career opportunities
The automotive industry’s demand for trained workers has consistently increased, and those who complete their automotive sequence in skills classes obtain entry-level positions in a wide variety of industry settings, including service stations, dealerships, and automotive specialty businesses. Typical job titles in this field include auto parts specialist and automotive technician.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
• SUNY Rockland Community College
• Universal Technical Institute (UTI)

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
• Goodyear Auto Service Center (Jericho)
• Nassau BOCES Transportation
• Rallye Motors – BMW (Roslyn)
• Westbury Jeep
• Westbury Nissan

* Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.

The Auto Skills program is certified by the National Automotive Technicians Education Foundation (NATEF) in General Automotive Service.
automotive technology

This course is certified by New York State.

With the technological advancements of today’s automobile, even routine maintenance procedures require analytical thinking, dexterity, and patience.

In this fast paced course, students will be trained to use state-of-the-art diagnostic, machining, and hydraulic test equipment.

Future technicians will learn:
- hand tool and equipment safety
- basic automotive fundamentals
- hybrid vehicle safety

In addition, much of the course will focus on:
- A5 brakes
- A6 electrical
- A8 engine performance
- A4 suspension

These four core ASE areas prepare students for automotive certifications. Each area of focus is instructed by Automotive Service Excellence (ASE) certified technicians with 20 years of automotive experience.

career opportunities

There is a great demand for qualified auto technicians in service stations, small repair shops, and new car dealerships. Graduates may pursue further training at technical colleges and seek associate degrees in automotive technology. Job growth is an estimated 14.3% (Monster.com). This is faster than average when compared to other industries. Positions such as automotive technician, service technician, front end specialist, service manager, service writer, and shop specialist are just a few that are available for today’s technician.

college agreements

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Baran Institute of Technology
- New England Institute of Technology (NEIT)
- Suffolk County Community College
- SUNY Delhi
- SUNY Morrisville
- SUNY Rockland Community College
- University of Northwestern Ohio

work experience opportunities

Barry Tech is one of the few New York State high schools selected to be an Automotive Youth Educational System (AYES) Training Center. Our automotive program has passed the rigorous industry standards established by ASE. Students who fulfill the competencies of the program are fully qualified as entry-level technicians. Local dealers have partnered with us to give students who demonstrate a commitment to high standards an opportunity for paid summer internships between their junior and senior years. The Snap-On Tool Company offers a scholarship as part of this internship experience, which may lead to a high-tech, well-paying automotive position.

- Advantage Nissan
- Anchor Audi
- Country Parkway Mobil
- Jiffy Lube
- Legacy Infinity
- Rallye Motors – BMW (Roslyn)

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong reading and math skills, as well as good gross and fine motor coordination.

 earning high school credits

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
1.0 credit Career and Financial Management
1.0 credit English
1.0 credit Math
1.0 credit Science–Specialized

Course length: 2 years
Credits: Up to 4 CTE credits a year

[re]Think the Environment

New certifications meet all required vehicle guidelines.
Young pilots will be actively involved in:
- pilot flight training
- computerized flight planning
- downloading weather data
- filing computerized flight plans
- internships
- field trips

career opportunities
The airline industry will soon be facing one of the biggest hiring surges in history. Boeing Aircraft Corporation is forecasting a need of approximately 466,650 commercial pilots between now and the year 2029. Pilot hiring worldwide is expected to average 23,300 newly hired commercial pilots a year.

Many students continue their training in the airline industry in college and earn a 4-year degree. Former Aviation Operations students are currently employed as professional pilots and fly for airlines such as American, United, U.S. Airways, Cathay Pacific, and ExpressJet. Other graduates of this program are working for the Federal Aviation Administration as air traffic controllers while some others are currently working in the field of aviation in the U.S. military or corporate aviation.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Averett University
- Dowling College
- Embry-Riddle Aeronautical University
- SUNY Farmingdale
- Florida Institute of Technology
- New England Institute of Technology (NEIT)
- Vaughn College of Aeronautics

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, and internships.
This course simulates real-world job situations. Students will work as a team, building projects and working in partnership with each other. Students will also learn the basics of hand and power tool use. The teacher will act as a construction supervisor to help students master entry-level skills needed to construct houses and commercial buildings.

1st-year carpentry students will learn:
• Safe hand and power tool use
• Building materials
• Basic foundation construction
• Floor, wall, and roof framing
• Roofing applications
• Window and door installation
• Exterior siding applications

2nd-year carpentry students will learn:
• Steel stud framing
• Drywall installation
• Taping and spackling
• Interior trim
• Suspended ceiling installation
• Stair layout and construction
• Cabinet installation

Related subjects include:
• Blueprint reading
• Estimating
• Job-related math and English

career opportunities
The Carpentry program will prepare the student for entry-level positions in both residential and commercial carpentry. After graduation, many students go straight to work for local residential contractors framing houses, hanging drywall, installing roofing and siding, building decks, and renovating kitchens and baths.

Other students take advantage of our strong relationship with the New York State Carpenters Apprenticeship Committee. Students that apply for, and are accepted into the Carpenters Union, will apprentice for 4 years while they are working as a carpenter at a rate of $20+ an hour with benefits. After successful completion of the 4-year apprenticeship program, the student graduates to journeyman status at rates of over $30 an hour. The journeyman carpenter can work regularly and still attend night classes at the training center, at no charge, to continue to be educated and help advance his or her career.

college agreements
Some students prefer to go on to college to further study in the fields of carpentry, construction management, engineering, or architecture. Opportunities in these areas can be found at our local community, state, and private colleges within a 3-hour drive from the Long Island region.

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
• Nassau Community College
• SUNY Delhi

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
• Nassau County Department of Public Works

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
1.0 credit Career and Financial Management
1.0 credit English
1.0 credit Math
This course prepares students for the Microsoft Certified Professional (MCP) Exam 210, based on the Microsoft Systems Engineer Program and Windows 2007 Professional edition, using Microsoft’s IT Academy Program, Centers of Excellence, and the Microsoft Developer Network (MSDN) Academic Alliance. After completing this course, students will also have the opportunity to earn Network+ Certification.

Young technicians will learn to:
- configure and troubleshoot in the desktop environment
- implement, manage, and troubleshoot hardware devices, drivers, network protocols, services, and security
- install and configure network operating systems, media types, and protocols
- monitor and optimize system performance and reliability
- set up and manage user accounts and groups
- set up, configure, and administer network printers
- construct several types of networks including wireless, bus, and star
- work with hubs, routers, bridges, and switches

This course is certified by New York State.

If students complete a two-year sequence, which includes Computer Technology, academic credits may be awarded (see page 54).

**course available:** Grades 11–12  
**Placement:** Regular  
**Admissions criteria:** Satisfactory completion of Computer Technology, strong visual acuity, and above average academic skills

**Computer Network Technology**

**Earning High School Credits**
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
- 1.0 credit  Career and Financial Management  
- 1.0 credit  English

**Course available:** Grades 11–12  
**Course length:** 2 years  
**Credits:** Up to 4 CTE credits a year

**Career Opportunities**
Students who complete this course are equipped with the skills needed for employment in the computer industry, and are often recruited by local companies. Graduates frequently pursue further training at technical schools, colleges, or in the military. Typical job titles in computer technology include field service technician, technical support specialist, help desk technician, desktop analyst, and entry-level computer technician.

**College Agreements**
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Briarcliff College
- DeVry Institute of Technology
- Island Drafting and Technical Institute
- New England Institute of Technology (NEIT)
- Queensborough Community College
- SBI Campus, an affiliate of Sanford-Brown

**Work Experience Opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Certilman Balin Adler & Hyman, LLP
- Dreyfus Corporation
- Nassau BOCES Technical Services
- Nassau County Information Technology

This course is certified by New York State.

If students complete a two-year sequence, which includes Computer Technology, academic credits may be awarded (see page 54).
computer
technology

This course is certified by New York State.

If students complete a two-year sequence, which includes Computer Network Technology, academic credits may be awarded (see page 54).

Course available: Grades 11–12
Course length: 2 years
Placement: Regular
Credits: Up to 4 CTE credits a year
Admissions criteria: Above-average academic skills and visual acuity

earning high school credits

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:

1.0 credit  Career and Financial Management
1.0 credit  English

They will learn procedures for working with basic network technology including:

• administration of network applications
• monitor interface
• operating system installation
• system teardown
• troubleshooting
• upgrades

career opportunities

Students who complete this course are equipped with the skills needed for employment in the computer industry, and are often recruited by local companies. Graduates frequently pursue further training at technical schools, colleges, or in the military. Typical job titles in computer technology include field service technician, technical support specialist, help desk technician, desktop analyst, and entry-level computer technician.

They will learn procedures for working with basic network technology including:

• develop a troubleshooting strategy
• fix PC hardware and software problems
• install and configure hard disks, CD-ROMs, and the complete family of Windows Operating Systems
• safely disassemble and reassemble a PC
• upgrade memory
• work with basic network technology including administration of networks
• network applications and hardware

Students will familiarize themselves with hardware and software including:

• CPUs
• CD and DVD-ROMs
• memory
• Windows Operating Systems
• printers
• storage media

college agreements

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

• Briarcliffe College
• DeVry Institute of Technology
• Island Drafting and Technical Institute
• Nassau Community College
• New England Institute of Technology (NEIT)
• Queensborough Community College
• SBI Campus, an affiliate of Sanford-Brown

work experience opportunities

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

• GEICO
• Nassau BOCES Technical Services
• Nassau County Information Technology

[re]Think the Environment

Learn how going digital can help our earth.
Students in this course will learn residential and commercial/industrial wiring in a shop equipped with mock-ups of residential buildings, and a motor control center, which simulates the commercial and industrial environment. Software applications specific to construction electricity will be used to supplement instruction. Electricians-in-training will learn the math and science needed to understand electricity in a practical, hands-on context where theory is always related to real life. Students will practice installations using Romex and armored cable methods, and bend rigid and thin wall conduits. They will also gain experience working with specifications and electric codes, as well as reading building plans and technical sketches. Alternative energy fundamentals such as photovoltaic solar panels and wind energy will be introduced.

Young electricians will practice residential work, such as:
- wiring lighting outlets, receptacles, switches, and appliances
- installing light-duty electrical services

They will also practice commercial work, such as:
- installing conduits
- installing wire, recessed and fluorescent lighting, large service panels, and motor control circuits

Students will learn how to install and service:
- chime systems and lighting fixtures
- conductors, cables, and boxes
- electric heat
- motors, electrical controls, and transformers
- switches and outlets

**Career opportunities**
Graduates will have the foundation for working for electrical contractors in construction, electrical repair, communication, or security systems. Opportunities for immediate employment exist with cable television providers, in telecommunications, construction and remodeling, and at electrical supply houses.

Full licensing requires 7 years of work experience, 2 years as an electrician’s helper, and 5 years as a mechanic. Many students continue their education at technical colleges where they may pursue careers in telecommunications or engineering. Typical job titles in construction electricity include electrician’s helper, apprentice, and cable television technician.

**College agreements**
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- New England Institute of Technology (NEIT)
- Pennsylvania College of Technology
- SUNY Delhi

**Work experience opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- CM Richey Electric
- Hi-Tech Electric
- High Potential Electric
- Nassau County Department of Public Works

**Course available:** Grades 11–12  
**Placement:** Regular  
**Admissions criteria:** Strong math skills; good fine motor coordination; and visual, spatial, and color discrimination skills.

**Earning high school credits**
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
- 1.0 credit  Career and Financial Management
- 1.0 credit  Math–Specialized
- 1.0 credit  English
- 1.0 credit  Science

This course is certified by New York State.
construction trades

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong math skills

Course length: 2 years
Credits: Up to 4 CTE credits a year

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:
1.0 credit  Career and Financial Management

This course will introduce students to the basic construction fields: construction electricity, masonry and bricklaying, plumbing, and carpentry. Students will be trained as building maintenance workers, and required to operate hand and power tools and other specialized equipment. Students will obtain an Occupational Safety and Health Administration (OSHA) 10-hour work card needed to work on major construction sites. Students must be able to work accurately with measuring tapes, and have solid math skills in fractions, multiplication, division, and percents. They must also be able to read and follow instructions in operational procedures and on safety warning labels.

Students will be introduced to Solar Energy and Wind Generations, using full scale training devices.

Construction trainees will learn a variety of skills including:
- general carpentry
- remodeling (wood and metal framing)
- gypsum, wall board installation, and finish
- bathroom tile laying
- replace electrical devices

Students will learn the basics of:
- plumbing maintenance and repair, such as working with pipes and fittings
- carpentry, including repair, framing, installation and concrete form construction
- masonry, mixing and placing concrete, finishing, and bricklaying
- electricity, introduction to basic wiring
- performing critical thinking as skilled labor
- the set up and use of a laser or optical builders level

career opportunities
Building maintainers must have a broad base of skills and knowledge about the upkeep of buildings, including metal work and electrical equipment. They must also be fully knowledgeable about the federal and state OSHA concerns. Students completing this course are eligible to seek employment as entry-level building maintainers, or continue their studies in one of the basic construction fields, including construction electricity, carpentry, plumbing, and welding. Typical job titles in construction trades include building maintainer, plumber’s assistant, electrician’s helper, bricklayer’s helper, and carpenter’s assistant. Trade unions recognize hours earned toward NYS Department of Labor apprenticeship programs.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Fulton-Montgomery Community College
- SUNY Delhi

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Habitat for Humanity
- Nassau County Department of Parks and Recreation
- Nassau County Department of Public Works
- Nassau/Suffolk Building Trades Association

[re]Think the Environment
Learn how to use sustainable products in all aspects of building trades.
**Construction Trades Skills**

Students in this course will develop the skills they need to begin a career in construction. Students will receive individualized instruction in maintenance work with an emphasis on repair-oriented projects, and participate in active learning in a variety of building maintenance areas.

Construction trainees will learn a variety of skills including:

- general carpentry
- basic plumbing and wiring

Students will learn to:

- clean or prepare construction sites to eliminate possible hazards
- shovel stone aggregate under the direction of a supervisor
- measure, mark, and align structural elements
- load or unload building materials and distribute them at appropriate locations on a building site
- erect or dismantle scaffolding, bracing, traffic barricades, ramps, or other temporary structures
- position or dismantle forms for pouring concrete, using saws, hammers, nails, or bolts

**Career Opportunities**

Long Island is home to numerous corporations and major shopping centers that require maintenance people to service their facilities. Graduates may choose to continue training for an additional year in one of the basic construction fields. Typical job titles in construction trades include custodian and construction helper.

**Work Experience Opportunities**

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Nassau County Department of Parks and Recreation
- Nassau County Department of Public Works

**Earning High School Credits**

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:*

- 1.0 credit Career and Financial Management

**Course Available:** Grades 11 or 12  
**Placement:** Skills  
**Course Length:** 1 or 2 years  
**Credits:** Up to 4 CTE credits a year

*Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.*
green technology and alternative energy

Course Available: Grade 12
Placement: Regular
Admission criteria: Strong math skills, good fine and gross motor coordination and spatial abilities

Classes held at the Nassau BOCES Outdoor Environmental Education Center Brookville location (buses available to and from Barry Tech).

career opportunities
A green economy is dependent on people who understand energy efficiency by using renewable energy and/or recycling and other green practices. “Green collar” jobs are skilled employment designed to conserve energy, restore the natural environment, and generate clean power. Many of these job titles are related to the construction trades and job titles include carpenters, plumbers, electricians, installers and inspectors, and energy auditors. Green careers requiring 4 years or more of college include titles such as environmental engineers, geoscientists (as consultants when assessing geothermal heat sources), and architects.

Students will learn about:
- Solar, wind, and geothermal forms of energy and observe/monitor systems in use.
- Methods of water conservation
- Alternative and renewable fuels
- Reducing our carbon footprint
- Waste treatment to create usable energy
- Green construction: materials and practices, Leadership in Energy and Environmental Design (LEED) certified buildings

college opportunities
Seniors may choose to continue their studies at a technical school or college to further explore this field. The list below is just a small sampling of the programs offered through the SUNY system for the student interested in pursuing a course of study in green technologies and renewable energy:

- SUNY Canton: Alternative Renewable Energy Applications Program
- The Clean Energy Technology Training Consortium includes the SUNY Community Colleges of Sullivan, Rockland, Orange and Dutchess Counties
- SUNY Erie: offers 2-year degree programs in Environmental Science and Environmental Technology Geoscience in addition to offering programs in building systems training
- SUNY Farmingdale: The Green Building Institute

The field of “green tech” continues to grow along with the demand for individuals with the knowledge to move our communities towards a sustainable future. This 1-year course for seniors will address topics on renewable and alternative energy and current trends in the “greening” of buildings such as green roofs/walls and other issues of sustainability facing us today. Students will use the resources of the Brookville site and local experts in their exploration of future Science, Technology, Engineering, and Mathematics (STEM) related careers and/or college courses of study.
Music, light, air conditioning, intruder alarm — imagine how easy it would be if all these home systems could “talk” to each other and be controlled remotely. This capability exists now. More than 6,000 contractors nationwide are installing integrated technologies in homes, and the number is growing.

Such systems reduce the clutter of components, cables, and remotes for everyone, and can improve the quality of life for individuals with disabilities.

Job opportunities abound for trained technicians working for retailers, custom electronics installation companies, utility companies, or on office building technical support teams.

The updated Network Cabling Technician program positions students to take advantage of this demand. They will be able to earn 8 industry-level certifications because Barry Tech is an authorized CompTIA and C-Tech testing center.

Students will learn:
- copper-based network cabling for home and commercial
- fiber optic network cabling for home and commercial
- integrated voice messaging systems
- installation, configuration, diagnosis, and preventive maintenance
- wireless communications for data and voice
- copper network cabling for data, voice, home entertainment, security systems, and integrated voice messaging systems

During 450 hours of study, future HTI specialists will cover such topics as:
- design of home and commercial networks
- wireless installation
- home security and access systems
- video and audio equipment
- home lighting control
- “firestopping” — products that halt the spread of fire, smoke and/or toxic gas
- integrated voice messaging system (IVMS/smartphone)

**career opportunities**
Graduates with C-Tech Cabling Certification are highly sought by companies such as:
- Best Buy
- Cablevision
- Certiport
- Cisco
- CompuCom
- Hewlett-Packard
- IBM
- Microsoft
- Novell
- Staples
- Verizon

**college agreements**
Upon completion of this course, students may receive 6 Dual-Enrollment college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Briarcliffe College
- DeVry Institute of Technology
- Island Drafting and Technical Institute
- Nassau Community College
- New England Institute of Technology (NEIT)
- Queensborough Community College*
- SBI Campus, an affiliate of Sanford-Brown

*Students can earn 7 college credits in our Dual-Enrollment program with Queensborough Community College.
# Plumbing

This course is certified by New York State.

## Career Opportunities

The continuing need for renovation and maintenance of systems in power plants, water and wastewater treatment plants, pipelines, office buildings, factories, and residential buildings increases the demand for qualified plumbing and heating workers. Legislation mandating the installation of fire sprinkler systems in existing structures has also increased job opportunities.

Graduates often choose to continue their studies at a technical school or college in order to enhance their career opportunities in fields such as design, engineering, steamfitting, and power plant maintenance and operation. Typical job titles in plumbing and heating include apprentice, helper, mechanic, journey worker, pipefitter, steamfitter, and master plumber.

## College Agreements

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

- Pennsylvania College of Technology
- SUNY Alfred State
- SUNY Delhi

## Work Experience Opportunities

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Nassau County Department of Public Works

## Course Information

- **Course available:** Grades 11–12
- **Placement:** Regular
- **Admissions criteria:** Strong math skills and manual dexterity
- **Course length:** 2 years
- **Credits:** Up to 4 CTE credits a year

## Earning High School Credits

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:

- 1.0 credit Career and Financial Management
- 1.0 credit English
- 1.0 credit Math–Specialized
- 1.0 credit Science

## Students will Practice:

- Installing bathroom fixtures
- Reading blueprints, drawings, and schematics
- Following the requirements of the plumbing code

## Specific Lessons Include:

- Site preparation
- Estimation
- Installation of drain, waste, vent, and hot and cold water distribution systems
- Protection of potable water
- Heating and ventilation

## Course Available:

- Grades 11–12
- Placement: Regular
- Admissions criteria: Strong math skills and manual dexterity
- Course length: 2 years
- Credits: Up to 4 CTE credits a year

## Course Length:

- 2 years

## Placement:

- Regular

## Credits:

- Up to 4 CTE credits a year
**small engine repair**

**Course available:** Grades 11–12  
**Placement:** Regular  
**Course length:** 2 years  
**Credits:** Up to 4 CTE credits a year  

**earning high school credits**  
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:  
1.0 credit  Career and Financial Management

This course will train students in the basics of small engine repair. In the first semester, students will learn basic small engine systems operations, including 4-stroke engine operation, maintenance operations, and repair.

In the second semester, mechanics-in-training will practice the construction, operation, lubrication, maintenance, troubleshooting, service, rebuilding, and repair of small 2-stroke engines.

This course stresses proper dress code, punctuality, and responsibility. Upon successful completion of this course and teacher recommendation, students may be considered for admission into Automotive Technology or Auto Body/Auto Collision Center courses in their second year.

Students will learn about the technology of hybrid power equipment. They will learn about emerging “green or clean” alternative fuels and power such as CNG, ethanol, and solar power. In the shop area, students will practice recycling disposal of expendable products, parts, and petroleum.

**Students will practice:**
- working with specific power equipment
- rebuilding outdoor power equipment
- diagnostics of power and recreational equipment

**Specific lessons include:**
- 2-cycle theory
- 4-cycle theory
- understanding the dimensions of operating equipment

**career opportunities**
Upon successful completion of this course, students will be qualified to seek entry-level positions in the small engine repair service industry while allowing for continued personal, professional, and academic advancement based on abilities and desires. Typical job duties include small engine repair mechanic assistant, sales representative, and sales assistant.

**work experience opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Sears
welding

This course is certified by New York State.

In this course, students will learn to fuse different types of metals. Welding and cutting processes will be implemented in a real-world shop setting utilizing state-of-the-art welding equipment as well as computer numerical control (CNC) plasma cutting equipment. They will be able to assess and evaluate their welds through nondestructive and metallurgical destructive test methods. Identification, selection, and application of welding electrodes and filler rods will also be taught.

Students in this course are eligible to become members of the student chapter of the American Welding Society, where they will have the opportunity to meet prospective employers on a professional level.

Upon successful completion of this program, students can earn their AWS D 1.1 Structural Steel Qualification for both vertical and overhead welding as well as the ASME section IX 6G pipe certification. Students will be able to take nationally-recognized welder qualification tests (certifications) in accordance with the American Welding Society and the American National Standards Institute.

Careers in welding encompass many levels of ability and salary ranges, and include boilermaking, ironworking, welding, and fabricating nuclear pipe vessels, as well as oil and gas line installations.

Welders-in-training will learn:
- welding and cutting safety practices
- fabrication techniques
- blueprint reading
- weld symbol identification
- math-related skills applicable to pipe and structural steel assemblies

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong math skills and steady hand-eye coordination

Course length: 2 years
Credits: Up to 4 CTE credits a year

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:

1.0 credit  Career and Financial Management
1.0 credit  English
1.0 credit  Math
1.0 credit  Science

Class projects include:
- bicycle frames, barbeques, furniture, tools, artwork, picture framing, custom automotive accessories aluminum rim repair, and many hours of practice for welder qualification tests

Students will study and practice essential welding processes, including:
- shielded metal arc welding (SMAW – stick)
- gas metal arc welding (GMAW – MIG)
- gas tungston arc welding (GTAW – TIG)
- oxyacetylene applications
- cutting and brazing
- plasma cutting

Note: Steady hand-eye coordination is a must for success in this course.

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Abble Awning
- Forest Iron Works
- Local 1 Plumbers
- Local 137 Sheetmetal Union
- Local 638 Steamfitters
- Meisner Gallery
- Nassau County Department of Public Works
- National Grid (Keyspan)
- NYS DOT
- Sav Truck Center

career opportunities
Many students gain entry-level employment directly upon graduation. Others pursue further studies at colleges or other post-secondary institutions.

Typical job titles for welders include iron worker’s apprentice, arc welder, certified welder, flame cutter, gas welder, heliarc welder, welding engineer, welding inspector, welder/mechanic, welding supervisor, structural inspector, and railing designer/fabricator.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Lincoln Technical Institute
- SUNY Delhi

Note: Steady hand-eye coordination is a must for success in this course.
human and public services

barbering technician
child development
cosmetology
cosmetology skills
culinary arts

NEW! emergency management/
homeless security
police science and criminal justice

culinary arts skills
Barbering Technician

Course available: Grades 11 or 12
Placement: Regular
Course length: 1 year
Credits: Up to 4 CTE credits a year

Earning High School Credits
Students completing this one-year course may receive up to 4 CTE credits OR distributed credits:
1.0 credit  Career and Financial Management

Career Opportunities
Upon completion of this course, students will be qualified to seek entry-level positions in the personal care and barbering industries while allowing for continued personal academic and professional growth. Students will be able to work as barbers, start their own barbering business, or participate as a sales representative in the barbering industry.

Work Experience Opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, and internships, at workplace sites such as:
- Neat & Complete Barber Shop
- Studio L 516

This is a combination of classroom instruction and laboratory opportunities that will develop academic and professional knowledge as well as skills required for job acquisition, retention, and advancement. This program emphasizes training in safety, sanitation, shaving, hair cutting, reception, and sales, and will create opportunities for small business ownership.

The curriculum is designed to give an overview of the barbering industry, licensing, and the opportunities for professional growth.

Students who successfully complete this 500-hour course will be eligible to sit for the New York State Licensing Exam. Students must be at least 18 years of age to take the New York State Barbering Licensing exam.
In this course, students will research, practice, plan, and guide a variety of activities for children. Students will become acquainted with proactive green solutions that support the development and use of environmentally safe materials, technology, and products. A unit of “Beautiful Junk” will complete the study of recycle, reduce, and reuse. They will gain an understanding of the principles of child growth and development, design safe and healthful learning environments, and take steps to advance the physical, social, intellectual, and emotional development of children.

During this course, students will learn the fundamental aspects of how a child develops and prepare for entry-level employment in early childhood programs. At the same time, they will earn hours of formal child care education necessary to apply for certification as a Child Development Associate (CDA). This course may also be used toward the 480 hours of experience working directly with children in group settings required for CDA certification. Upon graduation from high school, students 18 or older are eligible to apply for CDA certification. This application is made independently by the student at his or her own expense.

Certified CDAs-in-training will learn how to:

- maintain professionalism
- observe and record behavior
- establish an effective program operation

**career opportunities**

Corporations and government agencies often hire trained personnel for their on-site day care centers. Many graduates pursue further education at the college level to study early childhood or elementary school education. Typical job titles in the field of child development include teacher aide, teacher assistant, and assistant teacher in a nursery school.

**college agreements**

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

- Five Towns College
- Nassau Community College
- SUNY Cobleskill
- SUNY Morrisville

**work experience opportunities**

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Association for Children with Down Syndrome (ACDS)
- CMP Media, Inc.
- Harbor Day Care Center
- Head Start
- Hi Hello
- Little Sponges
- Montessori School
- Rose Garden
Course available: Grades 11–12
Placement: Regular
Admissions criteria: Students must demonstrate good fine motor dexterity

Earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
1.0 credit  Career and Financial Management
1.0 credit  English
1.0 credit  Science
1.0 credit  English

Our curriculum consists of 1,000 hours of both written and practical training. This includes all phases in the field of cosmetology with detail to new, innovative, creative, and functional methods. This will prepare our students for a rewarding and profitable entry into the beauty industry. We prepare students for their New York State Board Cosmetology exams, which they must pass in order to become licensed Cosmetologists in New York State.

Students will learn a number of skills in a wide variety of areas, including:
- hair shaping, styling, coloring, and straightening
- hair extensions
- thermal curling, finger waving
- barbering
- makeup art and skin care
- manicures and pedicures
- salon management and professional ethics
- moral and ethical development

Young stylists will also learn:
- texturizing
- multi-dimensional hair color
- streaking and lightening hair
- precision hair cutting
- eco-friendly facial technique
- organic color methods
- bonding, fusion, extensions, weaving applications, and wig designing
- permanent waving
- chemical straightening techniques
- image transformation
- professional/client communication skills

Career opportunities
Beauty-related careers offer flexible hours and opportunities to work from home or to own shops or spas. Many graduates attend college and often use their skills to help pay expenses.

Typical job titles in the field of cosmetology include hair color technician, hair cutting technician, hairdresser's assistant, hair stylist, perm technician, makeup artist, nail technician, salon manager or owner, scalp/hair specialist, skin care technician, teacher, waxing technician, and wig technician.

This is a New York State approved 1,000-hour cosmetology course that qualifies students to take the state licensing exam. (To meet requirements, students must attend 1 or more summer sessions.)

College agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Mercy College (Dual-Enrollment)
- New England Institute of Technology (NEIT)

Work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, job shadow days, and internships at workplace sites such as:
- Creative Designs Salon
- EHD Hair Design
- Hair Above Salon
- Lourdes Unisex
- Studio L 516
As the number of day spas and salons increases, so do employment opportunities with beauty supply retailers and wholesalers. Cosmetology Skills will help students prepare for jobs in salons and/or complete the cosmetology program that leads to licensing. Cosmetology Skills provides a smaller class setting of 15 students, with both a teacher and a teacher aide offering individualized instruction. Students who successfully complete this 450-hour, 1-year program will transfer into the Cosmetology II Program in order to complete the 1,000-hour license requirement.

Students will learn skills including:
- client service and telephone etiquette
- product ordering and inventory monitoring
- salon product knowledge and retail sales
- salon safety and sanitation
- salon management, moral and professional ethics
- anatomy and physiology
- hair analysis
- scalp and hair treatments
- hair cutting and shaping
- hair styling and thermal hair straightening
- permanent waving
- hair coloring
- manicures and pedicures
- makeup art and skin care

**career opportunities**
Students who successfully complete this Cosmetology Skills Program will be qualified to seek entry-level positions in the salon industry, allowing for continued personal and professional advancement based on their desires and abilities. Typical job titles in this field include salon receptionist, inventory clerk, and client service representative.

**college agreements**
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Mercy College (Dual-Enrollment)
- New England Institute of Technology (NEIT)

**work experience opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, job shadow days, and internships at workplace sites such as:
- Creative Designs Salon
- EHD Hair Design
- Hair Above Salon
- Lourdes Unisex
- Mary’s Hair Salon

All work experience is supervised by certified licensed teachers.
culinary arts

This course is certified by New York State.

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Students need to have good fine and gross motor skills as well as be at grade level for math and English.

Course length: 2 years
Credits: Up to 4 CTE credits a year

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
1.0 credit Career and Financial Management
1.0 credit English
1.0 credit Math–Specialized
1.0 credit Science

career opportunities
After graduation, students may elect to attend a 2- or 4-year college to further develop their culinary skills, or study food and nutrition or other hospitality subjects. Typical job titles in the culinary field include prep person, cook, short order cook, baker’s assistant, and steward.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- The Art Institute of Philadelphia
- The Art Institute of Pittsburgh
- Baltimore International College
- Culinary Institute of America (CIA)
- Johnson & Wales University
- Lincoln College of New England
- New England Culinary Institute
- Suffolk County Community College (Dual Enrollment)
- Sullivan County Community College
- SUNY Cobleskill
- SUNY Delhi

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Fairway Market
- Garden City Hotel

Students enrolled in this course will learn the art and science of quality food preparation and service. The Barry Tech learning environment has been praised by industry experts as having one of the most sophisticated facilities in the country. Aspiring chefs will develop a solid foundation of cooking skills through actual work experience using standard recipes.

Not only will our students learn all the basic and advanced techniques, but also they will study safety, sanitation, and nutrition as well as the Nassau County Board of Health regulations. Our young chefs will also prepare food for actual catered affairs including luncheons, conferences, and parties.

Students will learn how to:
- develop knife skills
- create vegetable cuts and cooking skills
- use and maintain equipment
- plan and price menus
- purchase commodities
- learn leadership and teamwork skills
- learn how to deal with customers, purveyors, and staff effectively

They will prepare:
- stocks, soups, and sauces from scratch
- meats, poultry, fish, and vegetables
- rice, pastas, potatoes, and a variety of grains
- salads and dressings
- baked goods including rolls, breads, cakes, cookies, pies, and muffins

Learn the health benefits of natural food choices.
This course introduces students to the world of professional food preparation and emerging food technologies as they pertain to the global food service market. Students will work under the supervision of professionally trained chef instructors, developing practical culinary skills and applicable workplace knowledge. Students taking this course will receive individualized attention while working in a small group environment. Students will be given the opportunity to work with state-of-the-art equipment necessary to help them meet the fast growing and ever changing needs of global food service trends.

Future cooks will learn basic skills in:

- food preparation
- use and maintain equipment
- learn leadership and teamwork skills
- utilizing basic knife and cooking skills
- purchasing and storeroom procedures
- customer service
- technical math and professional development

**Earning high school credits**

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits* using any or all of the following:

1.0 credit  Career and Financial Management
1.0 credit  Math–Specialized
1.0 credit  English

They will prepare:

- baked goods including breads, rolls, cakes, pies, and muffins
- meats, poultry, fish, and vegetables
- rice, pastas, potatoes, and a variety of grains
- soups, salads, and dressings
- sauces to match a variety of cooked meats, poultry, fish, and vegetable dishes

**Career opportunities**

Students who enroll in this course will have the option to take advantage of the Dual-Enrollment and articulation agreements that are currently in place for culinary arts.

Students who successfully complete this course will be qualified to seek entry-level/job ready skill positions in the food service industry. Typical job titles in this field include baker’s assistant, basic food prep assistant, caterer’s assistant, food server, and steward’s assistant.

**College agreements**

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

- Connecticut Culinary Institute
- Lincoln Culinary Institute
- Suffolk County Community College (Dual-Enrollment)

**Work experience opportunities**

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Fairway Market
- Garden City Hotel
NEW! A SENIOR OPTIONS COURSE

emergency management/homeland security

Course available: Grade 12
Placement: Barry Tech/Field Locations
Admission criteria: Essay stating the reasons why the student can commit to the course, real world projects, self-directed and team learning, and the sensitive nature of this work.

Course length: 1 Year
Credits: Up to 4 CTE credits a year

This course was developed in collaboration with the Morrelly Homeland Security Center, the Applied Science Foundation for Homeland Security (ASFHS), and the Long Island Forum for Technology (LIFT) located in Bethpage. This course examines the emergency management system and how we as a country and individuals prepare to meet these challenges.

The course will:
• include an introduction to the fundamentals of emergency management (EM) as an integrated system
• explain how its resources and capabilities can be networked together for all hazards
• provide an overview of the National Incident Management System (NIMS) and introduce students to the concepts and principles of the National Response Framework
• introduce students to the Incident Command System (ICS) to provide the foundation for higher-level ICS training
• provide an overview of the National Planning Scenarios and examine the threat risk and vulnerabilities associated with it
• examine terrorism, natural and man-made disasters and how we need to be self-prepared

Students will learn to:
• produce works that reflect critical thinking and creative thought
• develop the ability to communicate and collaborate with others utilizing both written and verbal skills
• evaluate the Emergency Management System in response to all hazards
• understand Emergency Management
• understand and identify the components of the National Incident Management system
• identify the different threats, risks, and vulnerabilities to be prepared for disaster
• understand the structure of terrorism
• identify the concepts and command structure of the United States Department of Homeland Security

career opportunities
The industries that employ the largest numbers of emergency management degree holders include: Local and state governments, medical and surgical hospitals, community food and housing agencies, emergency and relief services, and electric power plants as well as other utilities. Some of the many jobs open to emergency management degree holders are: disaster recovery manager, emergency management program specialist, emergency response team leader, emergency services director, environmental health and safety manager, hospital emergency preparedness administrator, hurricane program manager, nuclear emergency planner, and safety specialist.

colleage opportunities
Possible college partners are:
• New York State Institute of Technology (NYIT) Cyber Security
• St. John’s College of Professional Studies Homeland Security

industry partners
Possible industry partners include:
• Applied Science Foundation for Homeland Security
• FEMA
• Morrelly Homeland Security Center
• Nassau County Office of Emergency Management (OEM)
police science and criminal justice

This course is certified by New York State.

Students in this course will be introduced to the laws, practices, and techniques necessary to work in the criminal justice system. Students will become familiar with the New York State court and corrections system(s), police organizations, and private security. Students will develop the skills needed to deal with social situations and security requirements as they affect the community. They will learn through hands-on, real-world activities such as mock trials, demonstrations, police patrol functions, field trips, and lectures from guest speakers.

Students will practice:

- lidar speed enforcement
- arrest procedures
- handcuffing techniques
- fingerprinting skills
- emergency response techniques
- private security systems
- communications skills
- CSI lab techniques
- police tactics

They will learn about:

- conducting a crime scene investigation
- operating a security business
- crisis intervention
- critical issues in crime and safety
- court systems and correctional facilities
- interacting with special populations

Note: In order to be accepted into this course, students must have good academic and behavior records. An interview is required.
Natural and agricultural sciences have a large impact on the environment/ecosystem due to biotechnology, use of natural products, and recycling. Learn how to care for animals as well as our earth.

natural and agricultural sciences

animal care
animal care skills
conservation and land management NEW!
horse science and management
veterinary science
animal care

Students in this course are exposed to a wide range of animal-related careers. These careers include grooming, veterinary science, animal behavior and training, and laboratory/pet shop animal care. Students are given the opportunity to experience hands-on learning and training in the classroom, as well as in various work-based learning facilities.

Students will be taught:
- grooming
- parasitology
- animal behavior
- animal husbandry
- anatomy
- physiology
- animal diseases
- veterinary assistant skills

career opportunities
The pet industry is expanding, and the emphasis is on preventive health measures such as proper vaccination, nutrition, and grooming, which create the need for animal support personnel, as well as highly-trained individuals in biomedical research. This course will prepare students for entry-level employment in a variety of settings.

Graduates who decide to pursue further education and earn a 2- or 4-year college degree can prepare for the New York State Licensed Veterinary Technician exam. These individuals may also decide to pursue studies in veterinary science, biotechnology, biology, or business management. Typical job titles in the field of animal care include veterinary assistant, licensed veterinary technician, pet bather/groomer, pet trainer, pet shop manager, and animal technologist.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- SUNY Cobleskill

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- BrightHeart Veterinary Referral and Emergency Center
- Freeport Animal Shelter
- Pet Wellness Center
- Petco
- Town of Hempstead Animal Shelter

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
- 1.0 credit Career and Financial Management
- 1.0 credit Math–Specialized
- 1.0 credit Science

2012–2013 Barry Tech Catalog of Courses www.barrytech.org
animal care skills

*Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.

Students in this course will explore careers in the pet and companion animal industries through a curriculum designed to teach entry-level skills that may lead to more complex career choices. Students will work with live animals using professional equipment in a classroom that serves as a functioning animal care facility. Students will progress from basic to complex skills associated with entry-level employment.

Students will develop skills in:
- animal husbandry and handling
- animal health care and monitoring
- care and management of exotic animals
- pet shop operations
- professional grooming

career opportunities

The expanding pet and companion animal industry continues to offer a variety of career opportunities, including support personnel in pet shops, veterinary offices, kennels, laboratories, and grooming salons. Students who successfully complete this course will be prepared for entry-level employment. Typical job titles in the animal care field include animal caretaker, kennel assistant, and pet bather/fluffer.

work experience opportunities

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Bobbi and the Strays
- Center for Specialized Veterinary Care
- Petco
- Town of Hempstead Animal Shelter

Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits:

1.0 credit Career and Financial Management
**Course Available:** Grade 12  
**Placement:** Regular  
**Admission criteria:** Strong math skills, good fine and gross motor coordination, and spatial abilities.

Classes held at the Nassau BOCES Outdoor Environmental Education Center Brookville location (buses available to and from Barry Tech).

This 1-year course will allow students to explore a wide range of Science, Technology, Engineering, and Mathematics (STEM) related green careers in the fields of conservation and land management and to consider future college options. Using the green spaces of the Brookville Environmental Education site, students will apply ecological concepts to their understanding of the issues facing Long Island today.

**Students will learn about:**
- Forest, pond, and seashore ecology
- Aquifers, watersheds, and water conservation
- Horticulture and landscaping
- Low water options (xeriscaping, rain gardens)
- Plant and tree identification
- Invasive plant and animal species threatening our local ecosystems
- Basics of organics as it relates to farming and pesticide use
- Appropriate land use

**career opportunities**
Long Island’s green spaces need management... and protection. We have many golf courses, parklands and shoreline recreational areas, as well as commercial and residential properties that share common environmental concerns related to Long Island’s limited groundwater. Those working in green jobs are involved in protecting the environment from further damage or work in restoration efforts. “Green Collar” jobs can be found in the areas of recycling, sewage treatment, and parks and golf course management. Other job titles may include conservationist, naturalist, town/city planner, landscaper, land surveyor, botanist and conservation biologist.

**college opportunities**
Seniors may choose to continue their studies with a 2- or 4-year college program to further explore this field. The list below is just a small sampling of the programs offered through the SUNY system for the student interested in pursuing a course of study in conservation and land management:

- SUNY Farmingdale State College: Horticulture program and Environmental Science
- SUNY: College of Environmental Science and Forestry (ESF) offers related associate degree programs through graduate level programs. (Note: Suffolk Community College offers a 2-year degree program that aligns to SUNY-ESF’s 4-year program)
- SUNY Stony Brook: Environmental Studies. Similar courses can be found at most of the SUNY universities and community colleges, including: Plattsburgh, Delhi, and Potsdam.
horse science and management

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong science, math, and reading skills. Moderate physical demands.

earning high school credits
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:

1.0 credit  Career and Financial Management
1.0 credit  Math–Specialized
1.0 credit  English
1.0 credit  Science

This course will teach students the skills and knowledge necessary to care for horses. Students will learn how to properly feed, handle, and manage different breeds of horses using all the equipment and tools required to manage a horse facility. They will also gain an understanding of the basic science, behavior, and proper nutrition of horses.

Students will develop essential skills, such as:

- cleaning and maintenance of riding equipment
- feeding and grooming
- riding for exercise and training
- diagnosis and administration of first aid for common injuries and ailments
- stable and horse farm management

Note: Horse Science and Management is taught at a separate, fully-equipped facility dedicated to this course. The North Shore Equestrian Center is located on Long Island University’s C.W. Post Campus, 720 Northern Boulevard (Route 25A), Brookville, NY 11548. For directions and a map, please visit www.barrytech.org and click the Locations/Directions link in the menu.

career opportunities
With more than 100 horse farms located in Nassau and Suffolk counties — and the significant use of horses for show, racing, and leisure riding on Long Island — the need for well-trained personnel is growing at racetracks, breeding farms, and riding stables. There is also a demand for trained professionals in veterinary offices locally, nationally, and internationally.

Students who complete this program may find employment in a variety of settings that require equestrian skills. Many graduates pursue further education in equine science, veterinary assisting, animal science, veterinary technology, or veterinary science. Typical job titles in this field include assistant trainer, breeding farm assistant manager, race horse groomer, exercise rider, show stable employee, and veterinary assistant.

college agreements
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:

- Averett University
- SUNY Cobleskill
- SUNY Morrisville

work experience opportunities
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:

- Jessie Silverman, Farrier

This course is certified by New York State.
veterinary science

This course is certified by New York State.

Course available: Grades 11–12
Placement: Regular
Admissions criteria: Strong record of academic success. Students must have passed Living Environment Regents exam.

Course length: 2 years
Credits: Up to 4 CTE credits a year

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
- 1.0 credit  Career and Financial Management
- 1.0 credit  English
- 1.0 credit  Math–Specialized
- 1.0 credit  Science

Earning high school credits

Students in this course will develop the skills necessary to work with both small and large animals, ranging from laboratory animals to exotics. Students will learn how to assist licensed veterinary technicians and veterinarians in the various clinical and technical aspects of animal care, as well as in laboratory and diagnostic testing techniques and procedures. They will gain real-life, hands-on experience in a classroom that functions as a veterinary clinic and surgical suite.

The Veterinary Science curriculum is dedicated to building upon the connections between animal health and well-being and environmental and ecosystem health, in accordance with organizations such as the Alliance of Veterinarians for the Environment (AVE) and the Jane Goodall Institute.

Students will develop an academic foundation in:
- anatomy
- physiology
- parasitology
- bereavement counseling
- medical terminology
- pharmacology
- animal diseases
- animal behavior

Career opportunities

Students who complete this course may find immediate employment as veterinary assistants in a variety of settings including small animal hospitals and clinics, research labs, pharmaceutical companies, public health and agricultural agencies, and in the pet industry. Graduates will also be prepared to pursue further studies in veterinary medicine, veterinary technology, and biomedical research. Typical job titles in this field include veterinary assistant, veterinary technician, veterinarian, and researcher.

College agreements

Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Mercy College (Dual-Enrollment)
- SUNY Alfred State
- SUNY Delhi

Work experience opportunities

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Baldwin Animal Hospital
- Bellmore Veterinary Group
- Island Trees Animal Hospital
- Levittown Animal Hospital
- Long Island Veterinary Service and Critical Care Center
- Massapequa Pet Vet
- Mid Island Animal Hospital
- Old Bethpage Village Restoration Farm Complex
- Old Country Animal Clinic

Learn proper use and disposal of medicines and chemicals.
arts and humanities

- advertising and animation design
- audio production
- fashion design technology
- graphics and commercial printing skills
- video production and digital film making
Do you like to draw? If yes, then this class may be right for you. Serious art students will build the foundation for a career in the commercial art world during this course. Young artists will learn a wide range of illustration techniques using several different types of media, from ink and charcoal to computers. Students will practice more advanced techniques from first to second year and will prepare a portfolio for college and career.

Students will learn Adobe Creative Suites software programs on Mac computers, including:
- Illustrator
- Photoshop
- InDesign
- Flash

Young artists will work on projects such as:
- children’s books
- full-color brochures
- self-portraits
- still-life drawings
- perspective drawings
- label design
- advertising design
- logo design
- package design
- Web design
- animation

**course available:** Grades 11–12  
**placement:** Regular  
**Admissions criteria:** Strong artistic, drawing, and color discrimination abilities.

**earning high school credits**  
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using either or both of the following:  
1.0 credit  Career and Financial Management  
1.0 credit  English

**Course length:** 2 years  
**Credits:** Up to 4 CTE credits a year

**career opportunities**  
Graduates will be prepared for entry-level work in the art departments of advertising agencies; public relations firms; or design, printing, and publishing companies. Graduation from a 2- or 4-year college will expand students’ career opportunities. Typical job titles in graphic design include production artist, layout artist, editorial artist, illustrator, art teacher, Web designer, and art director.

**college agreements**  
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- The Art Institute of New York City
- The Art Institute of Philadelphia
- The Art Institute of Pittsburgh
- Briarcliffe College
- Fashion Institute of Design and Merchandising (FIDM)
- Fulton-Montgomery Community College
- Nassau Community College
- New York Institute of Technology (NYIT)
- Pennsylvania College of Technology
- Sullivan County Community College
- University of New Haven

**work experience opportunities**  
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experience at workplace sites such as:
- Arista Printing and Computer Graphics
- Artisan Columbia Printing & Graphics Center
- Catholic Charities
- Herald Community Newspapers
- Mindset Productions
- Nassau BOCES Graphic Arts and Printing Service

This course is certified by New York State.  
*Formerly known as Graphic Design*
audio production

*At the time of printing, this course is not NYSED approved.

**Course available:** Grades 11–12
**Placement:** Regular
**Course length:** 2 years
**Credits:** Up to 4 CTE credits a year

**Admissions criteria:** Reading skills on grade level. Being creative.

**earning high school credits**
1.0 credit  Career and Financial Management

*When this course receives New York State Education Department approval, students completing this two-year course may receive one credit of English and one credit of Math.

Through hands-on training, students will learn the basics, including how to set up, operate, and maintain electrical equipment used in the industry. Students will learn audio production terminology and techniques. They will use instruments, microphones, and digital audio workstations to create multi-track recordings. This course will provide experience in the areas of radio, television, commercial projects, and live musical recordings. Projects will not only teach students to explore writing, producing, and engineering, but they also will gain an understanding of the history of music, musical styles, and recording.

**Students will learn:**
- digital recording technique
- microphone
- live sound re-enforcement
- electronic operation and composition
- mixing consoles
- multi-tracking and editing systems
- music history

**They will train for:**
- television
- radio
- theater
- concerts
- films
- commercial studios
- musical recordings

**career opportunities**
Typical job titles in the field of audio production include broadcast technician, engineer, mixing engineer, mastering engineer, radio technician, production assistant, maintenance engineer, radio technician, and assistant engineer.

**college agreements**
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- Five Towns College

**work experience opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites.

*At the time of printing, this course is not NYSED approved.*
In this course, students will develop a solid foundation in the practical skills they need to become designers, using state-of-the-art equipment such as dress forms and industrial sewing machines. Throughout the course they will compile a professional portfolio to showcase their work, as well as create garments that will be highlighted on the runway in an end-of-the-year fashion show.

**Young designers have the opportunity to:**
- create their own original designs (such as prom dresses, children’s clothing, and sportswear)
- model and exhibit completed garments
- attend guest lectures delivered by experienced professionals

Students will acquire essential fashion skills, including:
- sketching and fashion illustration for design
- garment construction
- patternmaking for shirts, dresses, and skirts
- draping
- development of slopers for patterns and original designs

**career opportunities**
Graduates may work in retail organizations and wholesale showrooms. Many students choose to continue their studies at 2- and 4-year colleges, pursuing degrees in fashion design, merchandising, retail management, and advertising, among others. Typical job titles in the field of fashion design include samplemaker, seamstress, showroom assistant, model merchandiser, buyer, and fashion designer.

**college agreements**
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- The Art Institute of New York
- The Art Institute of Philadelphia
- Fashion Institute of Design and Merchandising (FIDM)
- Herkimer County Community College
- Laboratory Institute of Design and Merchandising (LIDM)

**work experience opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences at workplace sites such as:
- Charlotte Ronson
- Issac Mizrahi
- Simply Vera Wang
The graphics industry is among the higher growth industries on Long Island. Students in this course will develop an understanding of this industry as it pertains to mass media. Using state-of-the-art reproduction equipment, they will learn the basic skills needed for entry-level positions in the commercial printing, sign making, and silk screen printing industries. The new leaders in the print and communications industries are those that can promote their manufacturing methods as “green-certified.” Students will learn how to produce printed products that are safe for a sustainable environment and which create a favorable public image of the graphics industry.

Students will learn:

- Illustrator
- InDesign
- Photoshop
- digital reproduction equipment used in commercial printing, sign shops, silkscreen shops, and for the presentation and display industry

**career opportunities**

Upon completion of this course, graduates will be prepared for entry-level positions in offset printing, computer graphics, silkscreen printing, wide format printing, and sign making. Typical job titles in the graphics field include desktop publishing assistant, layout assistant, design assistant, small printing press operator, bindery worker, silk screen printer, and sign maker.

**work experience opportunities**

Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experience at workplace sites such as:

- Artisan Columbia Printing & Graphics Center
- Fala Direct Marketing
- GEICO
- The Herald
- Sign-A-Rama

**earning high school credits**

Students completing this two-year course may receive up to 8 CTE credits OR distributed credits:**

1.0 credit  Career and Financial Management

** Students completing one year of this two-year course may receive up to 4 CTE credits OR distributed credits.

*Formerly known as Graphic Skills
Course available: Grades 11–12  
Placement: Regular  
Admissions criteria: Strong reading comprehension, good color, and visual acuity skills.

**earning high school credits**
Students completing this two-year course may receive up to 8 CTE credits OR distributed credits using any or all of the following:
- 1.0 credit Career and Financial Management
- 1.0 credit Science–Specialized

**course details**
Through hands-on training, students in this course will learn the ropes of the broadcasting, corporate video, and film industries using state-of-the-art equipment.

Students will learn about:
- pre-production
- studio/location production
- post-production editing

They will develop their technical skills in:
- Final Cut Pro
- Motion 4
- graphic animation
- cinematography
- audio engineering
- lighting techniques

Students will practice leadership roles through:
- directing
- performance
- production crew responsibilities
- equipment management

They will work as a team to accomplish:
- screenplay writing
- short films
- news broadcasts
- commercial advertisements
- music videos
- documentaries

**career opportunities**
Many graduates choose to continue their studies at 2- and 4-year colleges pursuing degrees, and/or seeking careers in the many growing areas of the communications industry, including cable television, webcasting, video production, and distance learning. Typical job titles in the communications field include camera operator, desk assistant, film/videotape editor, gaffer, grip, lighting assistant, production assistant, video engineering assistant, and prop person.

**college agreements**
Upon completion of this course, students may receive college credits subject to the entrance requirements of each institution and any additional criteria that may have been established. Current college agreements include:
- The Art Institute of Pittsburgh
- Dowling College
- Five Towns College
- Full Sail University
- New England Institute of Technology (NEIT)
- New York Institute of Technology (NYIT)
- Sullivan County Community College

**work experience opportunities**
Students who meet all eligibility requirements may participate in supervised, real-world, work-based learning offerings that include clinics, shadow days, internships, or paid Co-Op experiences, at workplace sites such as:
- Debbie Reagan Locations
- Hollywood East Productions
- Magic Visual
- SONY–Epic Records
- WBLI (106.1 FM)
- WLIW (TV 21)
- WLNY (TV 55/10)
academic courses

Attend for 2 years and get academic credits for the fourth year of English, and third years of math and or science as integrated into the CTE course. Courses differ; refer to the “credit” box for each course for details. (For more information see below.)

**English 11R/English Language and Composition (formerly English 12)**

English 11 Regents courses are taught by certified English teachers, using an instructional approach that combines the New York State curriculum with applied real-world project-based activities. Students will earn 3 credits for their Career and Technical Education courses and 1 credit for English. Please indicate when the student will be taking the English 11 Regents exam.

**Health Education**

This course is designed to help students learn and incorporate a variety of life skills that will enable them to solve problems, build positive relationships, and maintain healthy lifestyles. The application of these skills will promote good physical, mental, and social well-being. (1/2 credit Fall or Spring Semester)

**College Prep Mathematics (formerly Applied Math)**

This is a basic course with topics including algebra, geometry, probability, and statistics. Taught by certified math teachers, this course fulfills the third credit of math for students not taking a second/third Math Regents exam, and prepares those students who will be taking a math college placement exam. Students earn 3 credits for their Career and Technical Education course and 1 credit for math.

**Exploring Physical Science and Research (formerly Applied Science)**

This science course is designed to cover various topics in Physical Science which include chemistry, physics, earth, and space science. The objective is for students to acquire a knowledge and understanding of science and apply it to their future careers within the industry. Students will be better prepared to face the challenges in the 21st century by utilizing technology, performing scientific experiments, scientific research, and designing experiments while applying all acquired skills to daily life.

Students earn 3 credits for their Career and Technical Education course and 1 credit for science. (1 credit science course)

**Environmental Science**

This course is designed to provide students with the scientific concepts that are necessary to understand the physical, chemical, and biological environmental interrelationships within the natural world. There will consistently be an analysis of the impact that human activities may have on the environment. Integral components to this course include scientific research, lab activities, experimental design, analysis and application of alternative solutions. The objective is for students to learn how to promote a more sustainable environment that supports the needs of a growing population. (1/2 credit science elective: Spring Semester ONLY)

Prerequisite: Passed at least 1 NYS Science Regents exam.

This course may be used in conjunction with Bioethical Science if a full year (1 credit) of science is required for graduation. This course can be used towards the third year science credit for graduation.

**Bioethical Science**

This course is designed to analyze the ethical and moral implications of the new biological discoveries and biomedical advances that are occurring within the field of science. The analysis of these various discoveries will focus on the significant impact that they may have on life. In addition to incorporating 21st century skills, integral components to this course will include scientific research, experimental design, and lab activities. Scientific research will be utilized to engage in scientific analysis, presentations, and debate of the issues. Problem-solving techniques will be utilized to strategically plan alternative solutions in regard to some of the most controversial issues in the field. Examples of some controversial science topics that will be evaluated include, but are not limited to, genetic testing, Genetically-Modified Organisms (GMOs), stem cell research, animal testing, xenotransplantation, and cloning. (1/2 credit science elective: Spring Semester ONLY)

Prerequisite: Passed at least 1 NYS Science Regents exam.

This course may be used in conjunction with Environmental Science if a full year (1 credit) of science is required for graduation. This course can be used towards the third year science credit for graduation.

**Social Studies**

Barry Tech offers 3 social studies courses: U.S. History Regents, Participation in Government, and Economics. These courses are taught by certified social studies teachers following the New York State Regents curriculum. Students will earn 3 credits for their Career and Technical Education course and 1 credit for U.S. History, or 3 1/2 credits for their Career and Technical Education course and 1/2 credit for either Participation in Government or Economics.

**Physical Education**

Due to the limited capacity of our programs, priority will be given to seniors (12th grade) needing physical education credits for graduation. Each school district will be allotted seats in proportion to their enrollment. Districts will be notified of their allocation in mid-May. Students earn 3 1/2 credits for their Career and Technical Education course and 1/2 credit for physical education. This is a full-year course.

**More About Integrated and Specialized Academic Credits:**

The New York State Education Department (NYSED) approves Career and Technical Education (CTE) courses with integrated and/or specialized content for English, math, and science that qualifies them for graduation credits in these areas.

The following credits are approved by the NYSED after completion of 2 years in certified programs:

- **English:** 1.0 credit that satisfies the 4th-year requirement.
- **Math:** 1.0 credit that satisfies the 3rd-year requirement.
- **Science:** 1.0 credit that satisfies the 3rd-year requirement.
- **Health:** 0.5 credit that satisfies the 3rd-year requirement.

If these academic credits are used to meet graduation requirements, CTE credits will be proportionately reduced; i.e.: if 1.0 credit is applied for Career and Financial Management, total CTE credit is reduced from 4.0 to 3.0.

For more information, call the Counseling Office at 516-622-6814.

*Technical Academic credits are granted at the discretion of the district.*
Senior Options: CTE One-Year Courses
Seniors are invited to attend Barry Tech for one year to take advantage of these programs if their high school schedules have prevented them from attending for the two-year programs.

Three new Senior Options courses are being introduced:

- **Emergency Management/Homeland Security** (offered at Barry Tech in industry locations such as the Morrelly Homeland Security Center in Bethpage), page 40

The following courses are both offered at the Outdoor Environmental Education Center in Brookville with transportation from Barry Tech provided if needed:

- **Conservation and Land Management**, page 45
- **Green Technology and Alternative Energy**, page 28

These existing CTE Barry Tech courses can be taken as a one year Senior Option:

- Barbering Technician, page 34
- Network Cabling Technician/Home Technology Integration (HTI), page 29
- Pharmacy Technician, page 15

Note: Existing Barry Tech courses are designed as two-year programs in order for students to qualify to take Industry Assessments, certifications or license exams, get articulated or dual enrollment college credits, and/or receive integrated academics and a Technical Endorsement on their diploma. A one-year program may not allow these options for student outcomes.

Use the Barry Tech application and follow normal enrollment procedures to attend these classes.

Senior Studies: Academic courses seniors may need in their final year offered mid-day at Barry Tech

Seniors attending Barry Tech for one or two years may only need two or three classes to fulfill their graduation requirements. The most frequently needed classes are now offered during the mid-day break at Barry Tech.

**Senior Period 1: 10:25 – 11:05**

**Senior Period 2: 11:05 – 11:45**

Class options:
- English 12
- PIG/Economics
- PE

To apply, see the Barry Tech application.

Note: All classes are taught by certified NYS teachers who become the “teacher of record” for the course. With district permission, a student needing three courses has the option to take a course other than PE as an online course through the Nassau BOCES Virtual HS in a supervised lab at Barry Tech. A certified NYS teacher for the online course becomes the “teacher of record”.

All grades and transcripts are sent to districts for awarding credits.

Twilight Courses at Barry Tech

For students who have alternative schedules and cannot attend Barry Tech during the traditional AM or PM half-day schedule, late afternoon CTE courses are available. They can be taken for one or two years.

These courses are exactly the same as the daytime courses:

- they are taught by a CTE certified teacher,
- they follow the exact same curriculum and assessments,
- they are taught in the same classrooms and shops, and
- they offer similar opportunities for work-based learning and college articulations.

Courses offered are:

- Culinary Arts
- Pharmacy Technician
- Certified Personal Trainer – Exercise Science
- Advertising and Animation Design
- Automotive Technology

Due to enrollment numbers, courses may or may not run.

In addition, certain services available during the daytime programs will not be available in the Twilight such as: ESL, psychologist and Special Education teacher, the College Center (students can arrange to visit as needed during the regular daytime hours), SkillsUSA activities and student government, and other various student activities that occur between 7:45 AM and 2:20 PM.

See the regular application to enroll.

The schedules of all Nassau BOCES High Schools are now aligned so that students in Alternative or other schools can attend those schools for ½ day and Barry Tech for the other half. Twilight CTE allows for attendance in an alternative school such as Springboard or PATHS. Combined with Twilight BT, the students would then be in a full day Nassau BOCES program.
Barry Tech students have the opportunity to reinforce and apply what they learn in the classroom in real-world work programs. All programs follow the guidelines established by the New York State Departments of Education and Labor, and are supervised by a certified work-experience teacher-coordinator.

Cooperative Occupational Educational Program (Co-Op):
Eligible second-year students may be recommended by their teachers to join the Co-Op. They will follow an approved, supervised training plan, applying classroom learning, while earning wages and work experience.

Internship Program:
Eligible first- and second-year students can participate in this non-paid, work-based program in order to gain valuable work experience.

Clinic:
This is a required non-paid, teacher-supervised, work-based group-learning activity. Students participate in on-the-job training and instruction in a real-world, supervised clinical setting. A physical is required.

Field Trips and Shadowing:
Students visit business and industry sites or attend professional trade events. Some spend time shadowing an employee to increase understanding of a specific job and observe the work environment.

partnerships with employers:
At the very heart of Barry Tech are our partnerships with business and industry that help to direct our curriculum, ensure our equipment and facilities are up-to-date, and mentor students in work-based learning programs. They also give scholarships and awards, and hire graduates.

Able Ford
ACDS—Association for Children with Down Syndrome
Advantage Hyundai
Advantage Nissan
Adwar Video
Aetna Electrical Distributing Corp.
AHRC of Nassau County
Aimes Collision
American Airpower Museum
American Culinary Federation
American Red Cross
American Welding Society
AMETEX
Artisan Columbia Printing & Graphic Arts Center
AYES—Automotive Youth Education Systems
Baldwin Animal Hospital
Best Buy
Blackman Plumbing Supply Co., Inc.
BMW Group
BMW of North America, LLC
Bradley S. Portenoy, DDS
BRG Electric
CM Richey Electrical Contracting
Capital Collision, Inc.
Caribou—“Made in the USA—Keeping America Working”
Castle Collision Centers
CBC Media, Inc.
Center for Specialized Veterinary Care
Central Collision
Central Physical Therapy
Century General Contracting, Inc.
Charles Foerschner
CJ Electric
CMP Media
Colgan Airways
Cross Star Electric
Daryl Thomen
Debbie Regan Locations, Ltd.
Donaldson Acoustics Co., Inc.
DSW Shoe Warehouse
Elaine F. Garver, DMD
Electrical Training Center
Elliott Gantz & Co.

Empire State Carpenters Apprenticeship Committee
EOC—Head Start–Nassau Co.
FT Shelley Electric, Inc.
Fairway Market
First Class Child Care
Foresight Service Center, Inc.
Forest Iron Works
Four Food Studio Cocktail Salon
Frank Krupp
Freeport Animal Shelter
FXG Automotive Diagnostics
Garden City Hotel, HR
Gary Nadler, DDS
Grand Prix Subaru Jeep Group
Grand View Auto Body
Greater NY Automotive Dealers Association
Guide Dog Foundation
Habitat for Humanity of Nassau County
Harbor Child Care
Hassel BMW
Helo Electric
Herald Community Newspapers/Richner Communications
Hi Hello Child Care Center, Inc.
Hi-Tech Wiring, Inc.
Hollywood East Entertainment
Honda City
House of Kustoms
IBEW Electricians Union Local 25
Irene Oren & Company, Inc.
Imagine Early Learning Center
Infiniti of Manhasset
International Kennel Club
Island Eye Surgical
Island Rehabilitation Associates
J. Columbus Avenue School
James A. Lohrius Blueprint Co., LLC
Jarro Building Industries, Corp.
JetBlue Airways Corp.
Jiffy Lube, Farmingdale
John Carollo
Karen McClean, MA
KB Toys—Westbury
KEYSPAN Fabrication Facility
Kia Auto World
graduation requirements

Two-Year Enrollment:
All two-year students can receive up to 8 CTE credits. In addition, if the following subjects are used in the course where they are offered, the 8 credits will be reduced by the number of credits below* and may be distributed as follows:

- 1.0 English (required fourth year in lieu of English 12)
- 1.0 Math (required third year)
- 1.0 Science (required third year)
- 1.0 Career and Financial Management

*for NYSED approved and certified programs only

Second Language Requirement Waiver:
Students who complete a 5-unit sequence in a CTE subject can use that credit in lieu of the 3-unit second language sequence.

Certificates of Completion:
All graduates who have successfully completed a CTE course (of up to 450 hours for a 1-year course, or up to 900 hours for a 2-year course) can enter the workplace and/or continue studies and receive a Certificate of Completion.

Career and Financial Management (CFM):
This course is a requirement for all CTE programs. Students must take a CFM proficiency exam in January or June. Credit is awarded by district request.

opportunities for english language learners at barry tech

Barry Tech now offers programs for English as a Second Language (ESL) students. Criteria for acceptance: a minimum of a “level 2” on the New York State English as a Second Language Achievement Test (NYSESLAT) listening and speaking sections and review of the student’s home school records. An interview may be required as well. Although the Barry Tech student typically must be in 11th or 12th grade, ESL students may be eligible once they are 16 years old if they have not yet been able to reach 11th grade.

Students will have the assistance of bilingual aides in classes, ESL teachers, school counseling services, and family support as part of their Career and Technical Education program.

For information on student eligibility or course availability, contact Juan Gonzalez, Barry Tech Counselor, at 516-622-6841.

technical endorsements

Students who have successfully completed a 2-year CTE course at Barry Tech are eligible to earn a technical endorsement on their Regents diplomas.

The student is required to:
- complete a minimum of 22 credits
- achieve a grade of 75% or better in his or her chosen CTE course of study
- earn passing grades on all 5 of the required Regents exams
- score at or above the state average on the appropriate industry technical assessment
- complete a work-based learning experience as required by his or her approved program
- create a work-skills employability profile.

Nassau BOCES will notify each student’s home school district when he or she has completed all approved program requirements and has earned the technical endorsement.
Barry Tech provides students with a College and Career Center and a variety of college planning opportunities, including an annual College Fair, completion of a career plan, consultations with school counselors, college applications, and essays.

**College Fair:**
Each fall, more than 60 colleges, technical institutes, unions, and military representatives come to the Barry Tech campus to talk with juniors and seniors about their post high-school decisions. The College Fair is a great opportunity for students to explore colleges and ask questions about pursuing their careers from the comfort of Barry Tech. Many of the schools that attend have articulation agreements with Barry Tech, which allow students to apply their CTE training towards advanced credits, preferred admissions, waived classes, and in some cases, discounts on tuition and fees.

**College and Career Center:**
The College and Career Center is equipped with computers, college guides, financial aid information, scholarship resources, a multimedia room, and online resources. Workshops are held throughout the year on topics ranging from college choice to job readiness skills. The Center has regularly scheduled hours; appointments can be made to meet with a Barry Tech school counselor for assistance on an individual basis.

Barry Tech is now a recognized school, participating in the National Collegiate Athletic Association (NCAA) Clearinghouse. All student transcripts will be evaluated on an individual basis through the NCAA.

**College Articulation Agreements Include the Following Schools:**
The Art Institute of New York City
The Art Institute of Philadelphia
The Art Institute of Pittsburgh
Averett University
Baltimore International College
Baran Institute of Technology
Briarcliff College
Connecticut Culinary Institute
Culinary Institute of America (CIA)
DeVry Institute of Technology
Dowling College
Embry-Riddle Aeronautical University
Fashion Institute of Design and Merchandising (FIDM)
Five Towns College
Florida Institute of Technology
Fulton-Montgomery Community College
Full Sail University
Herkimer County Community College
Island Drafting and Technical Institute
Johnson & Wales University
Laboratory Institute of Design and Merchandising (LIDM)
Lincoln College of New England
Lincoln Culinary Institute
Mercy College
Monroe College
Nassau Community College
New England Culinary Institute
New England Institute of Technology (NEIT)
New York Institute of Technology (NYIT)
Ohio Technical College
Pennsylvania College of Technology
Queensborough Community College
SBI Campus
Suffolk County Community College
Sullivan County Community College
SUNY Alfred State
SUNY Cobleskill
SUNY Delhi
SUNY Farmingdale
SUNY Morrisville
SUNY Rockland Community College
Uniondale General Dentistry
Universal Technical Institute (UTI)
University of New Haven
University of Northwestern Ohio
Vaughn College of Aeronautics
Wantagh Dental Arts
Nassau BOCES High School Programs

English Language Alternative Programs (ELAP)
New to the U.S. with little or no formal education?
Age/grade appropriate literacy courses.
Call 516-608-6430 for more information.

Long Island High School for the Arts
Professional training in the performing and visual arts.
Long Island’s premier public school for talented high schoolers.
Call 516-622-5678 for more information.

Positive Alternative Twilight High School (PATHS)
Alternative education for students who need more than traditional education. Individual help. Evening classes.
Call 516-608-6445 for more information.

Program for Alternative Comprehensive Education (P.A.C.E.)
Highly structured education for teens who need a change of environment. Individualized instruction.
Call 516-626-1022 for more information.

Springboard
Are you a 16–19 year-old who needs your GED?
Develop skills and knowledge for post-secondary school or the workforce.
Call 516-608-6457 for more information.

Teenage Parenting Program (TAP)
School for pregnant and parenting teens.
Strong academic program with on-site nurseries.
Call 516-608-6400 for more information.

www.nassauboces.org/highschools
Educational Opportunities for Adults

Career Support Services
Need job training or placement?
Award-winning service for out-of-school youths and adults with disabilities.
Call 516-622-6832 for more information.

Adult Learning Center
Need help with English?
Taking the GED?
Free classes.
Call 516-622-5623 for more information.

Evening Career Training
Want to change careers or improve your life?
Call 516-622-6950 for an extensive catalog.

Arts for Adults
Creative? Want to express yourself?
Classes on Tuesday evenings at Long Island High School for the Arts in Syosset.
Call 516-622-5678 for more information.

www.adultednassau.org

Non-discrimination Statement
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