

n a s s a u
BOCES
BARRY TECH
2025/26



Joseph M. Barry Career & Technical Education Center

make your passion
your career!



www.nassauboces.org/barrytech

WELCOME

to Barry Tech

Barry Tech provides high school students with the opportunity to explore their career interests while developing the skills to become leaders both in their work and the community. We offer Career and Technical Education (CTE) programs, along with the qualifying academic credits specific to these programs. These are programs approved by the New York State Department of Education and promote success for every student. Along with our committed and experienced staff, our students are motivated and challenged to reach their highest potential.

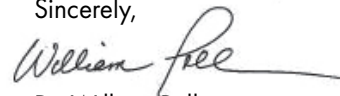
We invite you to be part of Barry Tech because we offer:

- Programs that have state-of-the-art, industry-approved technology and equipment
- College Articulations and Dual Enrollment agreements with prominent college and technical schools
- College enrollment days and our College Fairs
- Real-work situations through Work-Based Learning: Shadowing, Internships, Co-Ops, and Clinical Rotations
- Approved programs for the 4+1 CTE Pathways
- CDOS Credentials for students seeking an alternative pathway to graduation.

As you look through our course catalog and check out our virtual media on the website, you will learn that we are one of the most advanced and innovative Career and Technical Centers in New York State as well as being in the forefront of the many changes in education and industry. Most of our students continue their education after graduation and have the skills to meet the demands of a high-tech economy.

To learn more about the exciting world of Barry Tech, visit our website at www.nassauboces.org/barrytech, contact your high school guidance counselor to attend our "Taste of Tech" days, visit us at an Open House, or call the Barry Tech office at 516-622-6812/6814. We hope to see you soon!

Sincerely,



Dr. William Poll
Principal



Dr. William Poll
Principal
Barry Tech



Daniel Cava
Assistant Principal
Barry Tech



Nafesa Khan
Assistant Principal
Barry Tech



Anastasia Kokonis
Assistant Principal
Barry Tech



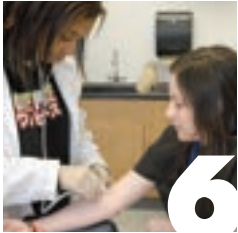
Dr. Abigail Smith-Lockett
In-District Program Coordinator
Barry Tech





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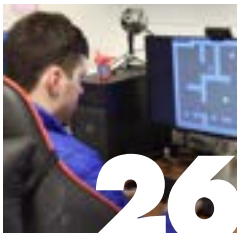
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Symbol Key

- This course qualifies for the CTE 4+1 Pathway
- This course meets the requirements for CDOS Commencement Credential



**BUSINESS/
INFORMATION
SERVICES**

Retail and Business Skills

COURSE AVAILABLE: Grades 10, 11, or 12
COURSE LENGTH: 2 years/CDOS Eligible
PLACEMENT: Skills

In this course, students will learn about the different forms of business ownership, entrepreneurship, management, marketing, and personal finance. During this course, students will help run the school store. All students will have an opportunity to be a cashier, bagger, greeter, stock person, and counter person on a rotating basis throughout the year. In addition, students will receive instruction in basic business procedures that may be used in a retail environment. These include telephone etiquette and message taking, formatting inventory and payroll spreadsheets in Excel, and basic business math. Students will learn and practice good customer service skills, teamwork, and workplace ethics.



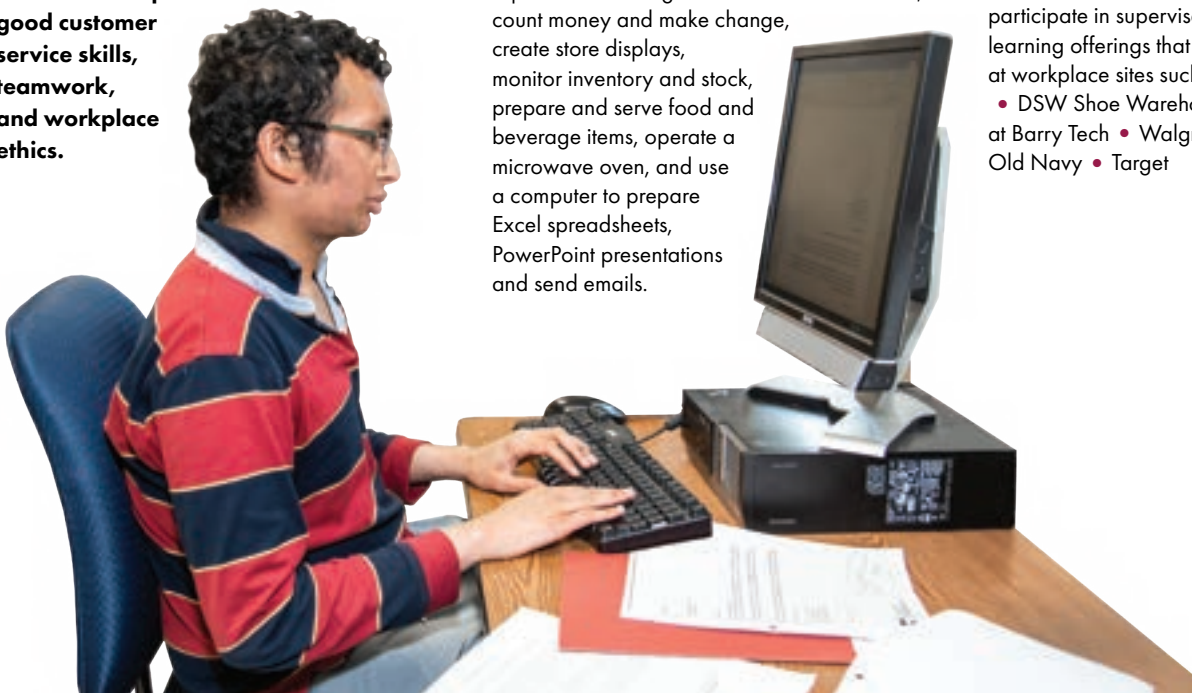
Students will learn to:

Operate a cash register with barcode scanner, count money and make change, create store displays, monitor inventory and stock, prepare and serve food and beverage items, operate a microwave oven, and use a computer to prepare Excel spreadsheets, PowerPoint presentations and send emails.

Work Experience Opportunities:

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

- DSW Shoe Warehouse
- Joe's Corner Store at Barry Tech
- Walgreens
- TJ Maxx
- Old Navy
- Target





HEALTH SERVICES

Dental Assisting

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years/CDOS Eligible

Students will learn the skills needed to assist in all phases of dentistry, from taking X-rays to four-handed chairside assisting, and 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 the use of personal computers for patient records, billing, and correspondence.

Students Will Learn:

Potential Dental Assistants will learn the essential clinical skills that include:

- assisting in dental procedures
- handling dental/medical emergencies
- CPR certification
- instructing patients on how to properly brush and floss
- preparing restorative and impression materials
- infection control
- techniques • taking, processing, and mounting X-rays
- digital radiography
- following Occupational Safety and Health Administration (OSHA) guidelines and universal precautions
- maintaining computerized dental records (DENTRIX)
- fabricating bleaching trays

*Upon completion of the required training and exams, students will be certified in CPR, Heart Saver/First Aid through the American Heart Association.



Career Opportunities:

Students who successfully complete this two-year course in addition to 200 hours of clinical experience will have the knowledge and skills necessary to sit for the New York State Dental Assisting Certification Exams. Participants must be at least 18 years of age and a high school graduate to apply for licensure. Additional fees for this exam are required. Many graduates attend college to pursue further education in dental hygiene, dentistry, or other health-related professions. Typical job titles in the field of dentistry include dental assistant (in private practice, hospitals, or dental clinics), office manager (business assistant), receptionist/bookkeeper, and dental product representative.

Health Care Skills

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years/CDOS Eligible

PLACEMENT: Skills

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 Learn:

- 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
- basic medical terminology

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.

Upon completion of the required training and exams, students will have the opportunity to be certified in CPR and Heart Saver/First Aid through the American Heart Association.



Medical Assisting and Phlebotomy Technician

COURSE AVAILABLE: Grades 11 – 12

COURSE LENGTH: 2 years/CDOS Eligible

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 learn vital signs, blood pressure, infection control, instrument and tray set ups, professional communication, law, and ethics. They will also learn to use computerized EKG machines, specimen collection, urology testing, and throat culture. Computer applications are also part of the curriculum. Students are required to wear medical scrubs daily.

Potential Medical Assistants Will Learn Skills Such as:

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



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 is in high demand. Students who complete this course will be qualified to work in a variety of entry-level positions, such as clinics, emergency 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 Certified Health Professionals National Certification in Medical Assisting. 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, X-ray tech, sonography, and medical office administration. Typical job titles in this field include medical assistant, medical receptionist, office assistant, ICD-9-CPT coder, medical biller, and ward clerk.

Upon completion of the required training and exams, students will have the opportunity to be certified in CPR, Heart Saver/First Aid through the American Heart Association.

Nurse Assisting

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years/CDOS Eligible

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. Responsibilities are centered around all bedside care under the direction of the registered nurse (RN), including 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 taught 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 to patients/residents with sensory impairments, speech impediments, and changes in nutritional needs).



After 2 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 patient feeding
- assisting patient with personal hygiene (bathing, grooming, and dressing)
- collecting specimens
- catheter care

Students Will Learn:

- 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

Phlebotomy Technician

COURSE AVAILABLE: GRADES 11 – 12

COURSE LENGTH: 2 YEARS



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 learn vital signs, blood pressure, infection control, instrument and tray set ups, professional communication, law, and ethics. Students will become familiar with the equipment used in blood collection and medical procedures, gaining hands-on

experience with venipuncture and capillary puncture techniques. Students will also learn about specimen collection, urology testing, and throat culture.

Students Will Learn:

- Fundamental Anatomy and Physiology
- Orientation to Lab Equipment
- Practical hands-on Use of Laboratory Equipment
- Laboratory Safety Management
- Infection Control
- Microbiology
- Urinalysis
- Hematology
- Blood Chemistry
- Phlebotomy
- Telephone Comm
- conducting hearing and vision screenings
- performing allergy tests and immunization
- preparing and administering oral and injectable medications
- assisting in physical and gynecology exams
- instrument identification
- capillary puncture
- EKG
- infection control

Physical Therapy Aide and Rehabilitation Medicine

COURSE AVAILABLE: Grades 11 – 12

COURSE LENGTH: 2 years/CDOS Eligible

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:

- how to treat many populations including children, athletes, the elderly, and people with health-related conditions
- 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 and sports medicine
- stretches/strengthening exercises
- whirlpool therapy
- fitness, nutrition, and weight control
- office duties

Upon completion of the required training and exams, students will have the opportunity to be certified in CPR, Heart Saver/First Aid through the American Heart Association.

Sports Medicine and Personal Trainer

COURSE AVAILABLE: Grades 11 – 12

COURSE LENGTH: 2 years/CDOS Eligible

This comprehensive and integrative course prepares students for nationally accredited certification from The National Academy of Sports Medicine (NASM) and preprofessional certification from The Academy of Personal Training Education (APTE).

The U.S. Bureau of Labor Statistics predicts about a 15% job growth for personal trainers from 2019 through 2029, which is much faster than average compared to all occupations.

Students Will Learn:

- Human Anatomy-Structures and Functions of the Muscular Skeletal, Nervous, Digestive, Respiratory, Endocrine, Immune and Cardiovascular Systems
- Integrative Mind-Body Exercise, Mindfulness and Meditation
- Introduction to Sports Medicine Careers
- Introduction to Complimentary Health Professions
- Medical Terminology
- Chronic Health and Medical Conditions
- Mechanisms of Injury and Healing
- Sports and Exercise Injuries
- Anatomical Terminology
- Human Physiology
- Exercise and Movement Mechanics
- Exercise Program Design
- Concepts in Nutrition
- Weight Management
- Supplements and Anabolic Steroids
- Clinical and Fitness Assessments including Vital Signs and Body Composition
- Spinal Mechanics
- Flexibility and Joint Range of Motion
- CPR-AED and First Aid
- The Business and Ethics of Personal Training

Career Opportunities:

Students will be qualified to seek employment as nationally accredited certified personal trainers after successfully completing this course and certification exam. Workplaces include Blink Fitness, New York Sports Club, LA Fitness, Corporate Fitness Centers, Fitness Studios, In-Home Training, Assisted Living Facilities, Sports Training Facilities and Country Club Settings.



A person with dark, curly hair and glasses is focused on using a yellow DeWalt miter saw in a workshop. The person is wearing a dark grey hoodie and is leaning over the workbench. The saw is positioned on a wooden workbench, and the person's hands are on the handles. The background shows various wooden materials and tools, suggesting a construction or fabrication environment. The lighting is bright, highlighting the person and the saw.

ENGINEERING TECHNOLOGIES

Auto Collision Technician

COURSE AVAILABLE: Grades 11 – 12

COURSE LENGTH: 2 years / CDOS Eligible

This course provides practical instruction in basic auto body repair and continues on to advanced techniques and technology. In the second year, students will estimate repair costs on vehicles, perform 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. Through the use of I-CAR's Professional Development Program (PDP) curriculum, students will graduate with a Platinum designation, making them highly employable.



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

Auto Skills

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years / CDOS Eligible

PLACEMENT: Skills

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 safety, proper dress code, punctuality, and responsibility. Many of our students will compete in industry-based competitions.

Using the Tools and Equipment of the Trade, Young Technicians Will Learn How to:

- jack and support a vehicle
- remove and replace exhaust systems, disc, and drum brake systems
- machine cut discs and drums
- balance and rotate tires
- remove a tire from a rim using a tire changer
- perform general maintenance, including oil and filter replacement, chassis lubrication, and fluid level check
- use a UBD scan tool to diagnose codes
- perform a NY State Vehicle Inspection
- use a UBD scan tool to diagnose codes
- perform a NY State Vehicle Inspection

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
- Honda City
- Jiffy Lube
- Millenium Honda
- Nassau BOCES Transportation
- Nassau County Department of Public Works
- Quick Lube
- Rallye BMW
- Rallye Lexus
- Rallye Motors – BMW (Roslyn)
- Tire Centers
- Toyota
- Westbury Jeep
- Westbury Nissan

Students are required to purchase:

- Uniform (purchased through school in September)
- Work boots
- Nitrile Gloves
- Penlight (optional)

Automotive Technology

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years/CDOS Eligible

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, the Course Will Focus on National Automotive Technicians Education Foundation:

- A5 brakes
- A6 electrical
- A8 engine performance
- A4 suspension

These 4 core Automotive Service Excellence (ASE) areas prepare students for automotive certifications. Each area of focus is instructed by ASE certified technicians with 20 years of automotive experience.

Work Experience Opportunities:

Barry Tech and GC Tech are two 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.

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:

- Advantage Nissan
- Anchor Audi
- Auto World Kia
- Country Parkway Mobil
- Gregoris Motors
- Jiffy Lube
- Legacy Infinity
- Millennium Honda
- Millennium Toyota
- Paul Conte Chevrolet
- Rallye Motors – BMW (Roslyn)
- Westbury Toyota
- NATEF (National Automotive Technicians Education Foundation)

Students are required to purchase:

- Uniform (purchased through school in September)
- Work boots
- Nitrile Gloves
- Penlight (optional)

Aviation Operations

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years/CDOS Eligible

This course will prepare students to take the Federal Aviation Administration (FAA) Private Pilot Written Exam and Remote

Pilot Written exam. Students who obtain at least a 3rd class medical can additionally receive flight training that can be credited towards their Private Pilot Certificate.

Some students choose to supplement their flight training with private lessons enabling them to complete their first solo flight and possibly earn their Pilot License while still in high school. Medical's require an appointment with an FAA approved Aviation Medical Examiner (AME) and completing the required paperwork on medxpress.faa.gov.

This course is also ideal for those students considering the pursuit of non-flying aviation careers as well. The classroom is a training lab that is equipped with a full set of computers, multiple FAA approved simulators that training will be conducted in for all students to expose them to the atmosphere that aviation professionals are trained and versed in.

During student flight training, state of the art equipments used to train the students in modern aviation trends and safety standards. Including but not limited to digital cockpit displays and modern avionics equal to that of professional and collegiate level training programs.

Aircraft flight training will be conducted at Republic Airport.



Carpentry

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years

In Carpentry 1, students will learn the basics of:

- hand and power tool use
- measurement and construction math
- layout and framing
- roofing
- window and door installation
- exterior siding
- materials estimation

The students will complete small individual practice projects and then apply these new skills, in groups of three or four, to the construction of small houses in the shop. By the end of the year, the students will complete the construction and “drying in” of a small residential structure.



In Carpentry 2, the students will learn the basics of:

- additional hand and power tool use
- related construction math
- metal framing
- drywall, taping, and spackling
- interior trim installation
- suspended ceilings installation
- stair and railing construction
- cabinet installation

The second year program is dedicated to the completion of the interior of the residential structure and also provides a basic understanding and activities in the commercial part of the trade. As in Carpentry 1, the second year students will also complete individual practice projects before applying their newly learned skills to a larger project in a group setting. Along with the construction aspect of the program, the students will learn about blueprint reading, estimation, and related English, math, and science. Additionally, the students will be taught the basics of financial management.

Carpentry Skills

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years

PLACEMENT: Skills

In Carpentry 1, students will learn the basics of:

- hand and power tool use
- measurement and construction math
- layout and framing
- roofing
- window and door installation
- exterior siding
- materials estimation

The students will complete small individual practice projects and then apply these new skills, in groups of three or four, to the construction of small houses in the shop. By the end of the year, the students will complete the construction and “drying in” of a small residential structure.

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- additional hand and power tool use
- related construction math
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- stair and railing construction
- cabinet installation



The second year program is dedicated to the completion of the interior of the residential structure and also provides a basic understanding and activities in the commercial part of the trade. As in Carpentry 1, the second year students will also complete individual practice projects before applying their newly learned skills to a larger project in a group setting. Along with the construction aspect of the program, the students will learn about blueprint reading, estimation, and related English, math, and science. Additionally, the students will be taught the basics of financial management.

Computer Technology

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 1 year

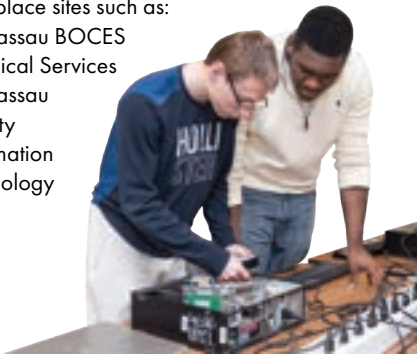
The Computer Technology program consists of computer hardware and software technology instruction that will help students understand and learn the basic concepts, functions, and nomenclature of computer technology. Students will learn about components and peripherals of a computer, and acquire knowledge on motherboards, storage media, expandable memory, multimedia cards, operating systems, account and help desk management, anti-virus protection, remote desktops, and printer management.

The students will be introduced to the theory behind basic electronics and digital electronics, number systems, Boolean algebra, memory elements, logic elements, timing elements, digital computer logic circuits (-AND, OR, NAND, NOR), multivibrator circuits, clock, computer organization arithmetic, control memory, input and output units, elements of programming and use of microcomputers such as the Arduino boards, including robotic applications.

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 BOCES Technical Services
- Nassau County Information Technology



Construction Electricity

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years



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 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. 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.

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

Construction Trade Skills

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years/CDOS Eligible

PLACEMENT: 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.

Students Will Learn:

- 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

Construction Trainees Will Learn Skills, Including:

- general carpentry
- basic plumbing and wiring



Network Cabling Technician/ Home Technology (HTI) Integration

COURSE AVAILABLE: Grade 12

COURSE LENGTH: 1 YEAR

PREREQUISITE: COMPUTER TECH



In this introduction to computer networking, students learn to network computers using the Windows

Server operating system and install and maintain a basic network. Other topics covered include protocols of data communications and communication architecture. What it takes to build, analyze, diagnose, and service networks in the home or business are also covered. The Internet and World Wide Web (WWW) are discussed as are the related hardware and software topics. Previous knowledge of Windows is helpful, but not required.

Students Will Learn:

- Installation, configuration, diagnosis, and preventive maintenance
- wireless communications for data and voice
- copper network cabling for data, voice, home entertainment, and security systems

During 450 Hours of Study, Future HTI Specialists Will Cover Topics Such as:

- networking
- 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.

Plumbing

COURSE AVAILABLE: Grades 11 – 12

COURSE LENGTH: 2 years

This course of study will combine classroom theory with hands-on training in the plumbing technologies that will prepare Long Island’s students for entry-level positions in this increasingly important career. Students will learn on actual field equipment and will engage in basic safety around skills such as pipe-fitting, soldering, wiring of controls, and system operation.

There will be added emphasis on better energy management as this is expected to lead to the replacement of older systems and the installation of newer, more efficient systems in existing homes and buildings. In addition to these “Green Collar Workforce” concepts, demand for maintenance

and service work is expected to rise as businesses and homeowners strive to keep increasingly complex systems operating efficiently. At the same time, jobs outnumber trained technicians – get prepared for this exciting career today!

Students Will Practice:

- reading blueprints, drawings and schematics
- piping of boiler and hydronic systems
- black pipe and pex installations
- Residential layouts

Specific Lessons Include:

- baseboard heating
- controls, circuits, and instruments
- efficiency rating
- electrical theory
- safe use of trade-related tools
- heat load calculations
- equipment selection
- gas pipe sizing
- boilers
- estimation
- hot and cold water distribution systems
- heating
- pipe fitting
- OSHA 30 certification
- New York Committee for Occupational Safety and Health (NYCOSH) certificate



Powersports and Engine Repair

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years/CDOS Eligible

This course will train students in the basics of repairing small engines, outdoor equipment, and powersport vehicles. In the first year, students will learn the components and systems that make up a small engine. Students will learn 4-stroke/2-stroke engine operation, maintenance procedures, diagnostics, and repair. Throughout the year, students will troubleshoot and rebuild various small engines and outdoor equipment. While the year progresses, the students will have the opportunity to earn online certifications through the Briggs and Stratton technician training course. Briggs and Stratton require all their service technicians nationwide to complete these exams. In addition, students will become First-Aid certified by the American Heart Association.

In the second year, students will be introduced to powersports. They will be learning about different types of powersport vehicles which include dirt bikes, all-terrain vehicles, jet skis, and small marine motors. They will learn about the components and systems that make up each vehicle. This program will cover preventative maintenance procedures, tire mounting, brake service, and chassis/suspension geometry. While in the program, students are going to be prepped to take the ASE G1 exam, which covers auto maintenance and light repair. Powersport vehicles have very similar components and technology as modern cars.

Throughout both years of the program, students will learn how manufacturers of both small engine and recreational vehicles are introducing “green/clean” alternative fuels to their product lines. Students will use the same technology the dealers use to repair various types of equipment in their repair facilities.



Students Will Practice:

- rebuilding small engines and outdoor power equipment
- diagnostics of small engines and related equipment
- retrieving information from the service manuals
- calculating the cost of the repair
- diagnose and repair components on recreation vehicles
- dismounting and mounting tires
- measuring wheelbase and track on recreational vehicles to enhance performance

Welding

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years

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 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.

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 and aerospace welding.

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

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
- AWISCO New York Corp.
- Con Edison's Van Nest Service Center
- Curtiss Wright
- Forest Iron Works
- Knickerbocker Partition Corp.
- Local 1 Plumbers
- Local 137 Sheetmetal Union
- Local 638 Steamfitters
- Nassau County Department of Public Works
- National Grid (Keyspan)
- NYS DOT
- RW Truck Equipment, Inc.
- Sav Truck Center





HUMAN AND PUBLIC SERVICES

Appearance, Nail & Wax Skills

COURSE AVAILABLE: GRADES 10, 11, 12
COURSE LENGTH: 2 YEARS

The curriculum consists of both written and practical training in cosmetology, barbering, nails and waxing, and aesthetics including the newest innovative techniques and methods allowing students to develop their creative skills. This course is an introduction to the above professions and students will get a taste if the appearance enhancement fields. Students have the potential to pivot into the hour accruing programs of cosmetology, barbering, aesthetics, or nails and waxing either at a secondary or post-secondary level.



Baking Skills

COURSE AVAILABLE: Grades 10, 11 or 12
COURSE LENGTH: 2 years/CDOS Eligible
(Pending NYSED approval)

In this course, students learn the foundations of baking and pastry arts. Students will learn safety and sanitation practices in addition to the foundational techniques to bake breads, cakes, and pastries.

Students Will Learn:

- safety and sanitation
- weights, measures, & baker's math
- methodology of mixing & baking methods
- production efficiency & cost control
- breads, doughs, and pastries
- decorative techniques
- custards, crèmes, & frozen desserts
- chocolate techniques
- multi-layer tiered cake design, production, & transportation

Career Opportunities:

Upon completion of this course, students will be qualified to seek entry-level positions in baking and pastry arts.

Baking-related careers offer flexible hours and opportunities to work from home or at bakeries, restaurants, and resorts. In addition to learning skills in the kitchen, students learn other professional skills such as creating resumes, building digital online portfolios (websites), business and money management, and communication skills.



Barbering Technician

COURSE AVAILABLE: Grades 11 or 12
COURSE LENGTH: 1 year/CDOS Eligible



This course combines classroom instruction and laboratory opportunities that will develop academic and professional knowledge and skills. The curriculum is designed to give an overview of the barbering industry, licensing, and the opportunities for professional growth. The program emphasizes training in safety, sanitation, shaving, hair cutting, reception, and sales, and will create opportunities for small business ownership.

Students who successfully complete 500 hours will be eligible to sit for the New York State Licensing Exam. Participants must be at least 17 years of age to take the exam. Students may be able to receive American Heart Association's CPR and First Aid Certification.

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.

Internship Opportunities:

- Neat & Complete Barber Shop
- Signature Fade Room
- Prestige Grooming Lounge

Barbering Skills

COURSE AVAILABLE: Grades 11 or 12
COURSE LENGTH: 1 year / CDOS Eligible
PLACEMENT: Skills



This course combines classroom instruction and laboratory opportunities that will develop academic and professional knowledge and skills. The curriculum is designed to give an overview of the barbering industry, licensing, and the opportunities for professional growth. The program emphasizes training in safety, sanitation, shaving, hair cutting, reception, and sales, and will create opportunities for small business ownership.

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Internship Opportunities:

- Neat & Complete Barber Shop
- Signature Fade Room
- Prestige Grooming Lounge

Child Care Skills

COURSE AVAILABLE: Grades 10, 11, or 12
COURSE LENGTH: 2 years / CDOS Eligible
PLACEMENT: Skills

In this course, students will develop the skills needed to enter the Child Care profession.

The course will provide students with a foundation in the principles of child development, basic health and safety, and training in the care of infants, toddlers, and preschoolers. They will learn about the physical, social, emotional, and cognitive development of each of the above-listed age groups. The course encourages both discussion and demonstrations of skills. Part of the curriculum will also include guest speakers such as, Cornell Cooperative Extension, early childhood professionals, school directors, and former students.



Visitations:

During the year, the class will visit local day cares and preschools. These may include: Kiddie Junction, Carousel Day School, Bethpage Nursery School, and the Greenhouse at Nassau Community College. The visitations will offer the opportunity to further learn about the varied educational settings in our area. Job shadowing opportunities may also be available. Students will have weekly visitations from the preschool program at Barry Tech.

Students Will Learn How To:

- complete a babysitting binder
- develop a resume and learn the steps involved in finding and applying for a job in the child care field
- practice and develop effective communication skills to enable them to work with both parents and coworkers in a collaborative team effort
- participate in computer and technology projects and lessons related to early childhood development
- develop a personalized portfolio that aligns to the NYS Preschool Common Core Learning Standards
- create lessons and learning projects for infants, toddlers, and preschoolers

Cosmetology

COURSE AVAILABLE: Grades 11 – 12
COURSE LENGTH: 2 years / CDOS Eligible

The curriculum consists of both written and practical training. It covers all phases in the field of cosmetology including the newest innovative techniques and methods allowing students to develop their creative skills. Students will be prepared for a rewarding and profitable entry into the growing beauty industry. Cosmetology prepares students for their New York State Board Cosmetology exams, which they must pass in order to become licensed cosmetologists in New York State.



Number of Skills in a Wide Variety of Areas, Including:

- highlighting and hair coloring techniques such as ombre, balayage, foiling, special effects color
- makeup techniques including highlighting and contouring, eyelash application, winged eyeliner, smoky eye, foundation matching, color correction, SFX (special effects), eyebrows
- performing complete makeovers including fun daytime looks, glamorous night-time looks, and more.

Criminal Justice and Law Enforcement

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years/CDOS Eligible



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 systems, police organizations, and private security. Students will develop the skills needed to deal with social situations and security requirements as they affect the community. Students will also learn cultural awareness and how to diffuse and deescalate. 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 Learn:

- UAV Drone Operation
- LiDAR speed enforcement
- handcuffing techniques
- fingerprinting skills
- emergency response techniques
- private security systems
- communications skills
- forensic lab techniques
- police tactics
- crime scene investigation techniques
- security business operations
- court systems and correctional facilities
- paralegal skills
- mock trial skills

Students Can Be Certified in:

- NYS 8-hour Security Guard Course
- NYS 16-hour Security Guard Course
- American Heart Association Heart Saver/First Aid/CPR
- Various FEMA Courses
- Peer Mediation (de-escalation)
- NYS OHSA

Career Opportunities:

Increased government and industry interest in designing and monitoring security systems, as well as anti-terrorism tactics, contribute to the growing job outlook in criminal justice and law enforcement. Graduates often continue their studies at a 2- or 4-year college, pursuing additional education to expand their career opportunities. Typical job titles in this field include police officer, corrections officer, probation officer, social worker, or store detective. Men and women employed in criminal justice and law enforcement work with police departments, court systems, corrections facilities, military police, and private security agencies.

Dual College Enrollment:

Upon completion of this course, students may receive up to 12 college credits with Farmingdale State College.

Culinary Arts

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years/CDOS Eligible

Students enrolled in this course will learn the art and science of quality food preparation and service. Our 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, 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:

- knife handling and cooking
- purchasing and storeroom procedures
- customer service
- technical math and professional development

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



Culinary Arts Skills

COURSE AVAILABLE: Grades 10, 11, or 12
COURSE LENGTH: 2 years/CDOS Eligible
PLACEMENT: Skills



Culinary Arts students enrolled in this course will learn the art and science of quality food preparation and service. Our learning environments have 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.

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Early Childhood Education

COURSE AVAILABLE: Grades 11 – 12
COURSE LENGTH: 2 years/CDOS Eligible



In this course, students will learn the basics and methodology of Early Childhood Education and Child Development from birth to eight years old. Over the two years, students will explore career pathways in teaching. They will interact with educational professionals and work with young children in an elementary school, preschool, and/or daycare.

Year one students learn the fundamentals of how a child develops. Students focus on the social, emotional, cognitive, and physical domains to gain understanding of developmentally appropriate practice. Based on this foundation, students create early childhood lesson plans, classroom rules, routines, and present read alouds. Students practice their skills with the many trips we take to preschools and daycare centers.

Year two students build a professional portfolio with resources they can utilize in the workforce and/or higher education. Students further their knowledge to include guiding children's behavior, safety considerations, collaborating with families and educators, observation, professionalism, working with special needs children, and effective program management. They apply what they have learned to real-life situations by participating in off-campus internships.

College dual enrollment credit and articulations offered.

Nail and Waxing Technician

COURSE AVAILABLE: Grades 10, 11, or 12
COURSE LENGTH: 1 year

Nail and Waxing Technician is a perfect course for students interested in launching a career in the beauty industry but are not interested in hair styling. Students will have an in-depth focus on nails and hair removal. When students are safely and competently able to perform skills, they will be able to practice on each other in a clinical setting. In year two, students will continue to practice and enhance their knowledge and skills with a weekly clinic.

Students Will Learn:

- Natural nail care
- Safety and sanitation
- Bacteriology and infection control
- Manicures
- Pedicures
- Artificial nail enhancement techniques
- Hard and Soft UV gels and acrylics
- Nail Art, Color Theory, and Design
- Anatomy and Physiology of arms, hands, legs, and feet
- Proper hair removal procedures
- Tweezing and Waxing of the face and body



A young woman with long brown hair and black-rimmed glasses is smiling warmly. She is wearing a light blue hoodie and is holding a small, fluffy dog with white fur and brown patches. The dog has a brown collar with a silver tag. The background shows a wooden door and a white wall with a fire alarm pull station.

AGRICULTURAL SCIENCES

Animal Care

COURSE AVAILABLE: Grades 11–12

COURSE LENGTH: 2 years / CDOS Eligible

Students taking this course are exposed to a wide range of animal-related careers. These careers include grooming, veterinary science, animal behavior and training, laboratory/pet shop animal care and management as well as agriculture-related careers. Students will be expected to participate in the disinfecting and sanitizing of the animal living quarters daily. In addition, all students will be required to handle the array of animals that reside in the classroom daily.

Students with animal/hay/dust-related allergies should speak to their pediatrician before beginning the program. In addition, all animals have the potential to bite and scratch. All students will be properly instructed on how to handle all animals properly and safely in the classroom. Students are expected to follow the instructors' rules to ensure classroom safety.



Students Learn:

- grooming • parasitology • animal behavior
- animal husbandry • anatomy • physiology
- animal diseases • veterinary assistant skills
- CPR/first aid • animal agricultural industry

Internship Programs available through Bobbi and the Strays Animal Shelter, All About Cats, Tackapausha Nature Preserve, Oath Animal Hospital, Town of Hempstead Animal Shelter.

Career Opportunities:

The pet industry is expanding, and the emphasis is on preventive health measures such as proper vaccination, nutrition, and grooming. This course will prepare students for entry-level employment in a variety of settings.

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

Animal Care Skills

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years / CDOS Eligible

PLACEMENT: Skills

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

Internship Programs available through Bobbi and the Strays Animal Shelter, All About Cats, Tackapausha Nature Preserve, Oath Animal Hospital, Town of Hempstead Animal Shelter.

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 exposed to entry-level employment. Typical job titles in the animal care field include animal caretaker, kennel assistant, and pet bather/fluffer.

Horse Science and Management

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years

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 Skills In:

- 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

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, veterinary assistant, and veterinarian.

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



Horse Science and Management Skills

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years/CDOS Eligible

PLACEMENT: Skills

In this course, students will learn the skills needed to prepare for basic, entry-level jobs in the equine industry. This course puts real-life learning to use; students work with horses as they learn the basic needs, handling, and care of horses as well as the basics of stable and horse facility management. Students will learn to develop leadership and communication skills that are pertinent to the equine industry, with special attention to soft skills such as problem-solving, teamwork, work ethic, and others that will lead to success in any chosen career.



Students Will Develop Skills in:

- riding for exercise and training
- grooming and tacking of horses
- leading and handling of horses
- cleaning and maintenance of riding equipment
- horse health care and monitoring
- day-to-day stable and horse facility operations
- basic horse science, behavior and proper nutrition for horses
- presentation and demonstration skills

Career Opportunities:

Long Island has an increased demand for people trained to work in many aspects of the equine field due to the significant use of horses for show, racing, and leisure riding. Upon successful completion of this course students will be prepared for an entry-level position in the equine field. Students will be prepared to apply for immediate employment, for positions such as hot walkers, grooms, turn out personnel, tacking personnel and stall maintenance personnel.

Note: Horse Science and Management/Skills is taught at a separate, fully-equipped facility dedicated to this course. The North Shore



Equestrian Center is located at Long Island University/LIU Post, 720 Northern Boulevard (Route 25A), Brookville, NY 11548. For directions and a map, please visit www.nassauboces.org/barrytech and click the locations/directions link in the menu.

Veterinary Science

COURSE AVAILABLE: Grades 11 – 12

COURSE LENGTH: 2 years/CDOS Eligible

In this course, students can turn their love for animals into a career and embark on an exciting career path in veterinary medicine, where they can put their knowledge and compassion into practice. Students 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.

Students Will Develop An Academic Foundation in:

- anatomy
- physiology
- parasitology
- bereavement counseling
- veterinary medical terminology
- pharmacology
- animal diseases
- animal behavior ethics

Career Opportunities

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





ARTS AND HUMANITIES

Animation and Digital Media Design Skills

COURSE AVAILABLE: Grades 10, 11 or 12

COURSE LENGTH: 2 years/CDOS Eligible

PLACEMENT: Skills

In this course, students will be introduced to the rapidly changing world of digital art and design. Students will use their creative skills in new and exciting ways as they produce a wide variety of computer art, traditional art, and animation pieces. The students will build a portfolio consisting of 2D and 3D works, computer-animated shorts, illustrations, advertising and promotional art, web, and 3D modeling and printing.

Students Will Learn to Use the Following Software:

- Adobe Creative Cloud, including Illustrator and Photoshop
- HUE Animation Studio
- MakerBot Desktop

Students Will Learn to Use the Following Equipment:

- iMac Computers
- Wacom Drawing Tablets
- MakerBot 3D Printer
- Epson Large Format Poster Printer
- Hue Animator Camera



Student Work On Skills Such As:

- animation
- teamwork
- project management
- stop-motion animation
- claymation
- 3D printing
- 2D computer art
- web design
- logo design
- photo retouching
- advertising design
- package design
- T-shirt and poster design

Audio Production

COURSE AVAILABLE: Grades 9–12

COURSE LENGTH: 2 years

PLACEMENT: Skills

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. Not only will projects teach students to explore writing, producing, and engineering, but they will also gain an understanding of the history of music, musical styles, and recording.

Students Will Learn:

- digital recording techniques
- microphone characteristics and techniques
- live sound reinforcement
- electronic operation and composition
- multi-tracking and editing systems
- audio recording history

They Will Train for:

- television
- radio
- theater
- concerts
- films
- commercial studios
- studio recording
- live events

Career Opportunities:

Typical job titles in the field of audio production include:



- producers
- broadcast technician
- engineer
- mixing engineer
- mastering engineer
- radio technician
- production assistant
- maintenance engineer
- 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
- Nassau 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.

Computer Game Design and Programming

COURSE AVAILABLE: Grades 11-12

COURSE LENGTH: 2 years/CDOS Eligible

Computer Game Design Skills is the perfect blend of core content and exciting student engagement! This is a diverse field that benefits from the unique skills and experiences every individual has achieved. Students will discover where their technology, creativity, and leadership skills fit best within the gaming, creative arts, and programming industries. Computer game design utilizes a simulated design studio team setting to develop skills needed for success in the areas of personal interaction and team building alongside technology hard skills. Students will design and build more than a dozen video games using industry standard software, 3D printers, drawing tablets, game controllers, and rapid program prototyping utilities and standard business applications.



Students who complete this course will be able to plan and manage a computer design project, implement programming for user interactions, develop computer art and animations, understand computer programming, create storyboards and character maps, design and build video games, employ strategies and tactics in a virtual world, create marketing plans, implement computer programming, and construct artificial intelligence in a video game and digital simulation model.

Students Will Learn:

- project management • teamwork • computer programming • 2D computer art • 3D computer art • computer animation • user interface design • strategic and tactical design • sound engineering • virtual world map design
- logical and algebraic thinking • character development • story development and planning • concept mapping • simulated physics modeling • communication • rapid design and prototyping • market analysis • testing computer software • debugging a program

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COURSE AVAILABLE: Grades 10, 11, or 12

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- logical and algebraic thinking • character development • story development and planning • concept mapping • simulated physics modeling • communication • rapid design and prototyping • market analysis • testing computer software • debugging a program

Fashion Design Technology and Merchandising

COURSE AVAILABLE: Grades 10, 11, or 12

COURSE LENGTH: 2 years

Fashion is an exciting area of study with many career opportunities. The Fashion Design course will give students an overview of the fashion industry during a 900-hour program with the emphasis on the creative end of fashion design.

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 and sportswear)
- model and exhibit completed garments
- attend guest lectures delivered by experienced professionals

Students Will Acquire Essential Fashion Skills, Including:

- sketching and illustration for fashion design
- garment construction
- patternmaking for shirts, dresses, and skirts
- draping
- development of slopers for patterns and original designs



Registration

INFORMATION

Who Should Apply

10th grade students are encouraged to visit Barry Tech anytime during the school year, but early enough to make a decision to apply by February or March. Some classes fill up quickly. 9th grade students may also visit/apply for certain programs.

Barry Tech CTE General courses are for students who:

- Achieve at grade level or above.
- Have completed graduation requirements on schedule for the grade they are in high school (on target to graduate).
- Work well in a class of students, work independently, and in small groups (teams).
- Plan to seek further education or go to work in their chosen CTE field.

Barry Tech CTE Skills courses are for students who:

- Require more individualized instruction and/or special instruction as a result of an IEP or 504 Plan.
- May be headed for a CDOS Credential.
- Can work well in a 15/1/1 setting.
- Plan to seek further education or go to work in their chosen CTE field or college.
- Require coordination with a district Transition Plan and Committee on Special Education.
- May attend for more than two years in order to fulfill graduation, curriculum, and/or specific CTE requirements.
- Require additional application materials and an interview to be accepted.



When to Apply

New applications now being accepted!

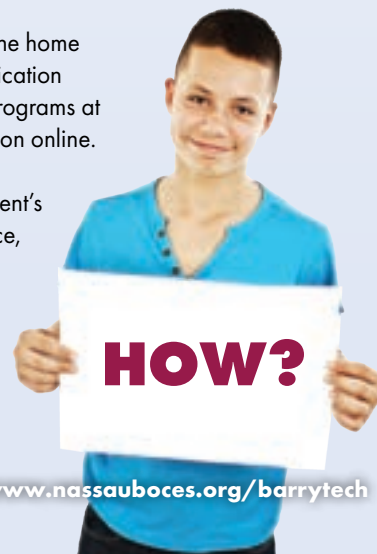
Students begin the application process in their freshman or sophomore year through their high school guidance office (depending on the program). Current juniors returning for their second year as seniors at Barry Tech need not apply. Their home school counselors will be contacted to verify enrollment for the continuing year.



How to Apply

Visit your home school counselor. The home school counselor can start the application process for Nassau BOCES RSIP programs at Barry Tech and submit the application online.

The admission process involves a comprehensive review of each student's school records, including attendance, transcripts, report cards, test scores, discipline reports, comments from school personnel, and health records. (Occasionally, students may be interviewed.)



www.nassauboces.org/barrytech



Directions to Barry Tech

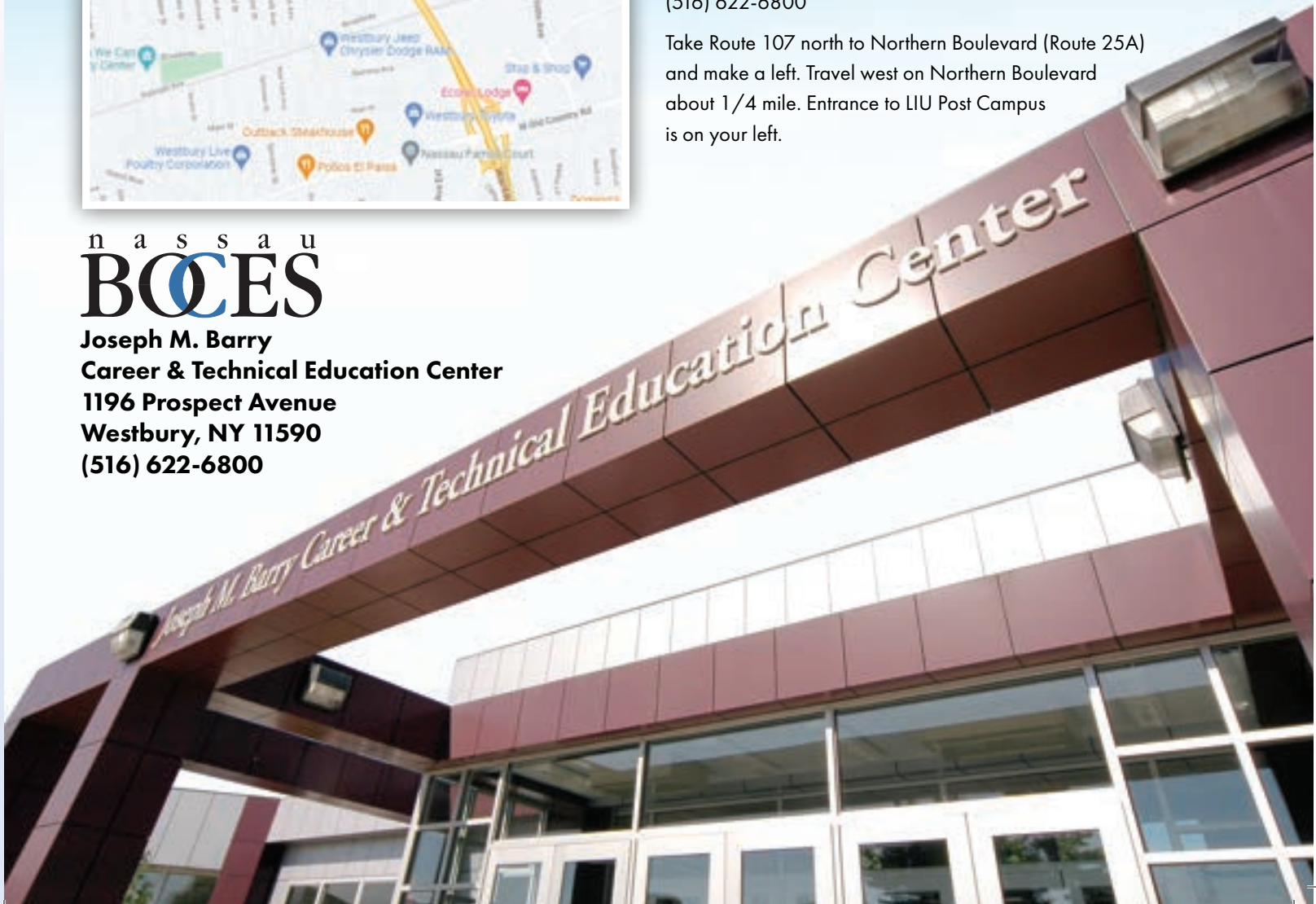
Take Wantagh State Pkwy. to Exit W2E (Old Country Rd. east).
Go two traffic lights and turn left on Charlotte Avenue.
Go to the end, make a left on West John St.
At the first traffic light, make a soft right onto Cantiague Lane,
building is on left, go to first driveway and turn left into parking lot.
(Main entrance is off Cantiague Lane)

North Shore Equestrian Center
LIU Post Campus, 720 Northern Boulevard, Brookville, NY 11548
(516) 622-6800

Take Route 107 north to Northern Boulevard (Route 25A)
and make a left. Travel west on Northern Boulevard
about 1/4 mile. Entrance to LIU Post Campus
is on your left.

n a s s a u
BOCES

**Joseph M. Barry
Career & Technical Education Center
1196 Prospect Avenue
Westbury, NY 11590
(516) 622-6800**





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Anastasia Kokonis, *Assistant Principal*
Dr. Abigail Smith-Lockett, *In-District Coordinator*
www.nassauboces.org/barrytech



Non-discrimination Statement

The Nassau BOCES advises students, parents, employees and the general public that it offers employment and educational opportunities without regard to age, color, creed, disability, familial status, gender, gender expression, gender identity, marital status, military/veteran status, national origin, predisposing genetic characteristics, race, religion (including religious practice and/or expression), sex (including pregnancy, childbirth, or related medical condition), sexual orientation or victim of domestic violence status. The Nassau BOCES shall provide equal access to the Boy Scouts and other designated youth groups.

The Nassau BOCES shall not discriminate or take any retaliatory action against an employee with respect to compensation, terms, conditions or privileges of employment because of the employee's or dependent's reproductive health decision-making.

Information and grievance procedures are available by contacting the following individuals at 71 Clinton Road, Garden City, NY 11530: Assistant Superintendent - Human Resources & Regional Schools and Instructional Programs at 516-396-2358, tmcgrath@nasboces.org, and/or Selma Stoddard, Esq., Attorney (Employee Relations), Department of Human Resources at 516-396-2360, sstoddard@nasboces.org. For further information, please see Policies **0100 Equal Opportunity and Non-Discrimination**; **0110 Sexual Harassment** and **0115 Dignity for All Students Act**. The entire policy manual is available on the Nassau BOCES website: www.nassauboces.org.

Inquiries concerning the application of regulations prohibiting discrimination may be referred to the above-mentioned individuals or to the following:

- Office for Civil Rights at NY Office for Civil Rights, U.S. Department of Education, 32 Old Slip, 26th Floor, New York, NY 10005-2500 or call 646-428-3900, or fax 646-428-3843, or TDD 800-877-8339 or email OCR.NewYork@ed.gov or file form at <http://www2.ed.gov/about/offices/list/ocr/complaintintro.html>.
- The U.S. Equal Employment Opportunity Commission (EEOC) may be reached at 33 Whitehall Street, 5th Floor, New York, NY 10004 or call 1-800-669-4000, or 1-800-669-6820 (TTY), or fax 212-336-3790 or email info@eoc.gov.
- The New York State Division of Human Rights (NYSDHR) may be reached at One Fordham Plaza, 4th Floor, Bronx, NY 10458 or call 1-888-392-3644 or 718-741-8300 (TDD/TTY) or email info@dhr.ny.gov, complaint forms may be sent directly to complaint@dhr.ny.gov or faxed to 718-741-8322.