

# **BERGEN COUNTY TECHNICAL SCHOOLS**

## **Adult & Continuing Education**



201.343.6000 ext. 2289 (Evening Classes)  
ext. 2288 (Day Classes)  
ext. 4639 (ESL/HSE[GED] Classes)  
ext. 2047 (Daytime Admissions Counselor)  
ext. 4603 (Apprenticeship Coordinator)  
<https://adulted.bergen.org> (Registration)

# **2021-22 CATALOG**

<https://www.bergen.org>

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# Bergen County Technical Schools – Adult & Continuing Education

190 Hackensack Avenue, Hackensack, NJ 07601

Office Location: Adult Education Building

**Victor Lynch, Principal**

**Information, catalog requests and registration:**

**Call 201-343-6000 ext. 2289 (evenings) or 2288 (days),  
4639 (ESL/HSE[GED] Classes), 2047 (Daytime Admissions Counselor)**

**Visit us online at [www.bergen.org](http://www.bergen.org)**

## CAMPUS LOCATIONS – Travel Directions

**Hackensack Campus (190 Hackensack Avenue, Hackensack):** Route 4 East to Hackensack Avenue South. Campus is located directly south of Route 4 on Hackensack Avenue, next to Boston Market.

**11 Carol Court:** Route 4 East to Hackensack Avenue South. Campus is located directly south of Route 4 on Hackensack Avenue, turn right into the parking lot just before the P.A.L. building.

**Teterboro Campus (504 Route 46 West & Central Avenue, Teterboro):** Route 46 toward Teterboro Airport. Campus is located directly across from airport on Route 46 West.

**Paramus Campus (E. 285 Pascack Road, Paramus):** Ridgewood Avenue to Pascack Road. Campus is located on Pascack Road, directly across from Bergen New Bridge Medical Center.

## 2021-2022 EVENING SCHOOL CALENDAR

**APPRENTICES must make an appointment with Dr. Karpowich at <https://adulthood.bergen.org> BEFORE registering for classes and BEFORE classes end for the year. You may email Dr. Karpowich at [apprentice@bergen.org](mailto:apprentice@bergen.org)**

### SEPTEMBER 2021

3-6 Labor Day Weekend (Closed)  
7-8 Rosh Hashanah (Closed)  
16 Yom Kippur (Closed)  
21-22 Evening Classes Cancelled at **Paramus Campus ONLY**  
23 Evening Classes Cancelled at **Teterboro Campus ONLY**  
30 Evening Classes Cancelled at **Hackensack ONLY**

### OCTOBER 2021

7 Evening Classes Cancelled at **Teterboro Campus ONLY**  
12 Evening Classes Cancelled at **Teterboro Campus ONLY**  
13 Evening Classes Cancelled at **Paramus Campus ONLY**

### NOVEMBER 2021

4 - 7 NJEA Convention (Closed, NO CLASSES)  
11 Evening Classes Cancelled at **Paramus Campus ONLY**  
24 – 28 Thanksgiving Recess (Closed, NO CLASSES)

### DECEMBER 2021

23 – 31 Recess (Closed, NO registration, NO CLASSES)

### JANUARY 2022

1-2 Winter Recess (Closed, NO CLASSES)  
17 Martin Luther King, Jr. Birthday (Closed, NO CLASSES)

### FEBRUARY 2022

18 – 22 Presidents' Recess (Closed, NO CLASSES)

### MARCH 2022

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### APRIL 2022

9 – 17 Spring Recess (Closed, NO CLASSES)

### MAY 2022

28 - 30 Memorial Day weekend (Closed, NO CLASSES)

### June 2022

23 Last Day for Students & Teachers (Closed, NO CLASSES)

*\*If school closes due to inclement weather or emergencies, the administration will determine whether and when such days will be re-scheduled later in the school year.*

**All registration  
is now online  
at <https://adulthood.bergen.org>**

**NOTE:** Evening Division Students -

All weekday classes listed in this catalog are held in the evening hours.

All Saturday classes listed in this catalog are held in the morning hours.

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# MISSION STATEMENT

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The Mission of the Bergen County Technical Schools Adult & Continuing Education Program is to provide county-based cost-efficient vocational and technical programs and services for post-secondary students. The actualization of this mission includes the following key components:

- Students will experience applied learning and teaching strategies utilizing appropriate and up-to-date specialized equipment and facilities.
- Programs will respond to regional economic needs and at minimum, permits graduates to pass national competency and licensure examinations.
- Students will be exposed to New Jersey Department of Education approved career-based educational programs and related work experiences and projects.
- Program goals are to provide for employment and/or continuing education after program completion.

Programs address the needs of general and special populations including disabled, gifted/talented, and at-risk post-secondary students through specific occupational programs.

# VISION STATEMENT

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Bergen County Technical Schools Adult & Continuing Education Program provides our students with the skills, training and work habits needed to succeed in technical fields of employment, taking into account each student's unique skills, abilities and interests. We accomplish this through the implementation of currently accepted industry practices, while also keeping an open mind to new technologies, instructional methodologies and community needs.



**Howard Lerner, Ed.D.**  
*Superintendent*



**Victor Lynch**  
*Principal*

# BERGEN COUNTY TECHNICAL SCHOOLS ADULT & CONTINUING EDUCATION

Phone 201-343-6000

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## **Principal**

Victor K. Lynch

## **Extension**

2274

## **Email Address**

viclyn@bergen.org

## **Evening Vocational School**

Pat Field

## **Extension**

2289

## **Email Address**

patfie@bergen.org

## **Apprentice Coordinator**

Dr. James Karpowich

## **Extension**

4603

## **Email Address**

jamkar@bergen.org

## **Daytime**

Tarla Broadnax

Debbie Curatola

Shakeena Grice

## **Extension**

2288

2408

2048

## **Email Address**

tarbro@bergen.org

debcur@bergen.org

shagri@bergen.org

## **Daytime Admissions**

Anthony Mongilia

## **Extension**

2047

## **Email Address**

antmon@bergen.org

## **HSE (GED) Test Prep**

Silvia Carmichael

Carol Cochi

Ghazala Nomani

## **Extension**

4639

4610

4638

## **Email Address**

silcar@bergen.org

carcoc@bergen.org

ghanom@bergen.org

## **HSE (GED) Testing**

Registration

Carmen Sosa

## **Extension**

2308

2293

## **Email Address**

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carsos@bergen.org



# CUSTOMIZED CORPORATE TRAINING PROGRAMS



Image by Gerd Altmann from Pixabay

BCTS with over 50 years of experience in the education of adults is one of the area's richest training resources available to companies in the metropolitan area. From the fully equipped cutting-edge training facilities to expert instructors, BCTS can deliver customized, innovative training programs to companies and small businesses. To learn more about developing programs specific to your company's needs, please call Victor Lynch at 201-343-6000 ext. 2274 or e-mail [viclyn@bergen.org](mailto:viclyn@bergen.org)

## HOME MAINTENANCE & REPAIR

**Great For Homeowners!**

These courses are ideal for the homeowner or novice interested in doing some basic repairs on their own. Course locations and nights are subject to change.

**Basic Plumbing** ..... see page 11

**Electrical House Wiring I** ..... see page 7

**Electrical House Wiring II** ..... see page 7

**Carpentry - Basic Tools Measurement and Layout, Framing Methodology** ..... see page 5

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**Principles of Operation of Gas, Electric and Oil Heating Systems** ..... see page 25

**Introduction to Air Conditioning and Refrigeration Theory** ..... see page 25

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**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.

# ADVANCED MANUFACTURING

## Fundamentals (150 hrs.) 101

1. Safety
2. Shop Mathematics / Blueprints
3. Measuring equipment
4. Support Tools
5. Workplace Methodologies

This Course covers basic safety measures observed while working in a manufacturing environment. Students will cover common shop calculations and how to read a part print. Associated measuring equipment that is required to check final fitment of the part against the print will be introduced as well. Finally, a look at workplace methodologies and work flow inside a modern manufacturing facility

Course #	Start	Days	Hours	Location	Cost
101	Oct. 4	M-T-W-Th	6:00-9:00	Hackensack Room 108	\$1500

**New!**

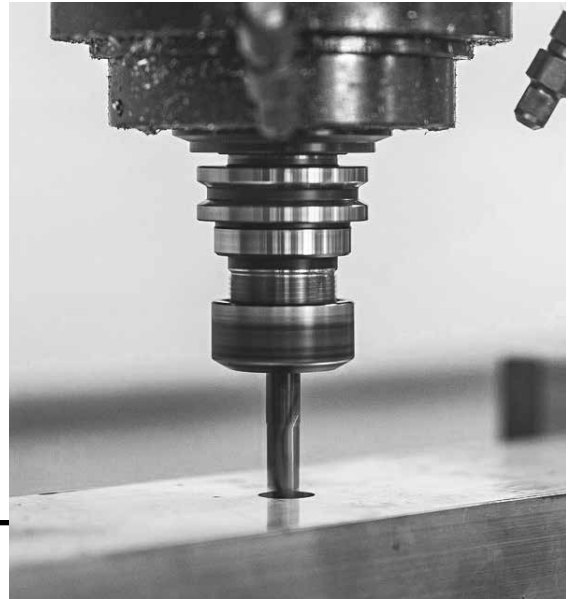


Image by Robert Wilkos from Pixabay

## Mill Basic (150 hrs.) 102

1. Anatomy of the Mill
2. Operation
3. Cartesian Coordinates
4. Feeds and Speed
5. Materials

Students will be introduced to a milling machine and its anatomy, along with a thorough review of the machine parts and how they work. A fundamental understanding of the cartesian coordinates and how feeds and speed effect materials and accuracy of a part. The operation with be covered at an introductory level to be built on in later courses.

## Lathe Basic (150 hrs.) 103

1. Anatomy of the Lathe
2. Operation
3. Cartesian Coordinates
4. Feeds and Speeds
5. Materials

Students will be introduced to a lathe and its anatomy, along with a thorough review of the machine parts and how they work. A fundamental understanding of the cartesian coordinates and how feeds and speed effect materials and accuracy of a part. The operation with be covered at an introductory level to be built on in later courses.

**Coming  
Soon**

## CNC / CadCam Intro (250 hrs.) 104

1. What is CNC
2. Introduction to CNC machine tools
3. G-code programing
4. Cad/Cam (Computer aided design/ Computer aided machining)
5. Set up
6. Operation

Students will be taught an introduction into basic parametric modeling and how a solid model is designed with machining in mind. We will cover what a computer numerical control machine is and how it works as well as the specific computer language used to drive the motion. Computer Aided Machining will be covered so the student may link the CAD/CAM relationship to the CNC machine and how they all work in harmony.

Sources: <https://www.toolingu.com/>  
Machinist Handbook  
Career Development Course work USAF  
<https://www.autodesk.com/>  
<https://academy.titansoftcnc.com/>

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# APPRENTICESHIP TRAINING

## What is Apprenticeship?

Apprenticeship is learning a skilled trade through on-the-job training and related technical classes. Students are required to take a minimum of 144 hours of classroom instruction per year. Classes provide a combination of theoretical knowledge and practical experience. Bergen County Technical Schools offer approved programs. Apprenticeship training programs can be added with a minimum of 10 students. Customized apprenticeships in fields outside the scope of school programs can be arranged for individual students. Length of training varies from four to six years and is determined by the industry or union. The United States Department of Labor and the New Jersey Department of Labor and Workforce Development approve apprenticeship programs in New Jersey.

## How can I qualify?

You must be employed full-time in your chosen field of work and your employer or union must be willing to sponsor you. You may be eligible for advanced standing if you have on-the-job experience, vocational school training and/or military background. The Apprenticeship Coordinator will assist you with program placement and registration.

## How can I become certified?

Certification is open to all registered apprentices who successfully complete on-the-job and related classroom training requirements. Individual course certificates must be saved to document the apprenticeship program hours you have completed. Apprenticeship Certificates are issued by the United States Department of Labor, Bureau of Apprenticeship and Training.

**Two months prior to completion of the full program, contact the Apprenticeship Coordinator to begin processing your Completion Certificate.**

## How can I get a trade license?

Programs such as electrician, plumber and welder offer licensure opportunities. Students typically enroll in a license prep class after completion of the apprenticeship program and all requirements related to licensure. Please see page 26 for more information.

## IMPORTANT INFORMATION

Starting dates: See course detail in the catalog.

Time: See course details.

Location: See course details.

**Tuition: \$1,150 ( Full Year ) if registration is completed in the Fall semester.**

**→Out-Of-County Fee: \$50**

**→Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**REGISTRATION: IN-PERSON ONLY!** Registrations CANNOT be accepted until you consult with the Apprenticeship Coordinator.

You must do this before you register in the fall and spring and bring any prior certificates. In compliance with NJ State mandates for Apprenticeship Certification, a personalized program will be developed for you.

**BERGEN COUNTY APPRENTICESHIP COORDINATOR:** Dr. James M. Karpowich

Bergen County Technical School

201-343-6000, ext. 4603

e-mail: jamkar@bergen.org

## APPRENTICESHIP REGISTRATION -

MUST BE DONE ONLINE. FIRST YOU MUST MEET WITH THE APPRENTICESHIP COORDINATOR TO COMPLETE THE ENROLLMENT PROCEDURE. CALL THE APPRENTICESHIP COORDINATOR, DR. JAMES M. KARPOWICH AT 201-343-6000 EXT. 4603 OR E-MAIL HIM AT JAMKAR@BERGEN.ORG FOR AN APPOINTMENT AND APPRENTICESHIP REGISTRATION HOURS.

For updated plumber licensing requirements, log onto [www.njconsumeraffairs.gov/plu](http://www.njconsumeraffairs.gov/plu) or call 973-504-6420

For updated electrical licensing requirements, log onto [www.njconsumeraffairs.gov/elec](http://www.njconsumeraffairs.gov/elec) or call 973-504-6410

For updated HVAC/R licensing requirements, log onto [www.njconsumeraffairs.gov/hvacr](http://www.njconsumeraffairs.gov/hvacr) or call 973-504-6250



## Carpenter (144 hrs./yr.) 103

The apprentice studies trade theory, blueprint reading, industrial mathematics, welding, shop board measures, framing, insulation, roof construction, exterior finishing, windows, doorways, porches, garages, flooring, interior fittings, trims, stairs, stringers, and wall finishes. Shop practice relates closely to trade theory. The student gains a thorough understanding of building and construction materials and equipment. The program aims to train students to become experienced in the building trades and to progress to positions of responsibility.

<u>Fall</u>	<u>Spring</u>
Year 1: #500	#503
Year 2: #505	#572
Year 3: #561	#563
Year 4: #565	#564

See individual courses for start dates and times.

## Electrician (144 hrs./yr.) 105

The program includes electrical theory and its applications to residential, commercial, and industrial fields. Recommended prerequisite: One year of high school algebra. (See Electrical Technology section of catalog for Electrical License preparation courses.)

<u>Fall</u>	<u>Spring</u>
Year 1: #600	#601
Year 2: #602	#603
Year 3: #608	#613
Year 4: #604	#605

See individual courses for start dates and times.

## Machinist (144 hrs./yr.) 106

This program enables apprentices to advance in the machine tool field. Classroom instruction includes sciences and related mathematics, blueprint reading, and tool and die design. Practice work includes setups, machine operation, and special projects.

Year 1: See apprenticeship coordinator	(Fall and Spring terms)
Year 2: #870	(Fall and Spring terms)
Year 3: #389 (Fall)	#390, #391 (Spring)
Year 4: Approved Electives	(Fall and Spring terms)

See individual courses for start dates and times.

## Plumber (144 hrs./yr.) 108

The apprentice plumber learns to install, maintain, troubleshoot, and repair household and industrial plumbing systems. Topics of study include: job safety and health; pipes and pipe sizes; fittings and materials; basic hand tools; advanced tools and power machines; installation of pipe and proper supports; installation of plumbing fixtures and appliances; supply, drainage and venting; testing of plumbing systems; blueprint reading and isometric drawing; fireline installation and basic welding theory.

<u>Fall</u>	<u>Spring</u>
Year 1: #520	#521
Year 2: #522	#523
Year 3: #524	#525
Year 4: #526	#527

See individual courses for start dates and times.

## HVAC/R (144 hrs./yr.) 109

This apprenticeship program begins with courses in shop safety and the proper handling of the tools of the trade. Basic courses include instruction in fundamentals of plumbing and basic electrical theory. Each student will master the principles of refrigeration and the operations and servicing of all refrigeration equipment. Topics include: types of refrigerants and their uses; layout and design of components; motors, controls, switches, gauges, wiring, harnesses, valves, pumps, condensers, compressors, coils, and piping; rebuilding compressors; troubleshooting all equipment; reading and modifying mechanical and architectural blueprints, cost-estimating of labor and materials.

<u>Fall</u>	<u>Spring</u>
Year 1: #640	#641
Year 2: #642	#643
Year 3: #644	#645
Year 4: #646	#647

See apprenticeship coordinator regarding Year 3 and Year 4 courses.

See apprenticeship coordinator for individual course start dates and times.

## Welder (144 hrs./yr.) 111

The course of study is intended to supplement hands-on, practical welding skills with the theoretical and mathematical skills required of a master welder. The course offers the welder an opportunity to pursue certification, which requires the candidate to be familiar with many welding techniques and processes.

Year 1: #870	(Fall and Spring terms)
Year 2: #873	(Fall and Spring terms)
Year 3: #872	(Fall and Spring terms)
Year 4: #872	(Fall and Spring terms)

See individual courses for start dates and times.

## Telecommunications Technician (144 hrs./yr.) 112

This new apprenticeship program will equip the student with knowledge of communications technology and wiring. The course of study begins with basic and intermediate electrical theory and hands-on skills, which will serve as the base upon which to build a telecommunications career. Topics include cable types, wiring techniques, electrical color-coding, technical specifications, blueprint reading, cable management, telecommunications maintenance, and safe working concepts.

<u>Fall</u>	<u>Spring</u>
Year 1: # 600	# 601
Year 2: See apprenticeship coordinator	(Fall and Spring terms)
Year 3: # 401 or Approved Elective	Approved Elective
Year 4: Approved Elective	Approved Elective

See individual courses for start dates and time.

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights, are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

# PLUMBING

For current licensing requirements, contact the State Board of Examiners of Master Plumbers at 973-504-6420 or visit their website at <http://www.njconsumeraffairs.gov/plu/>. **Course locations and nights are subject to change.**



## Basic Plumbing (60 hrs.) 515-A, 515-N

This course is ideal for homeowners interested in doing some plumbing repairs on their own or even individuals looking into plumbing as a profession. This course is designed to cover basic areas of residential plumbing repairs and maintenance. Subjects to be covered are faucet repair, faucet replacement, tub or shower repair, soldering copper tubing, gluing PVC pipe, and various joining techniques for repairing different materials. Also included are drain cleaning - i.e. snake out of sinks and tubs, and clearing toilet stoppages. Other areas of repair are hot water heaters, replacing toilet parts, steam and hot water boiler maintenance and minor repairs. Class is in the form of lecture, demonstration, and hands-on. Required are a tape measure, work gloves, leather shoes or boots, and safety glasses.

Course #	Start	Days	Hours	Location	Cost
515-A	Oct. 5	T & Th	6:00-9:00	190 Hackensack Ave. Plumbing Shop	\$665
515-N	March 8	T & Th	6:00-9:00	190 Hackensack Ave. Plumbing Shop	\$665

Ray Krenc: raykre@bergen.org

## Introduction to Plumbing (78 hrs.) 520-A (Fall Semester Only)

This course provides a foundation for the Plumbing Apprenticeship Related Training Program. This course provides an introduction to the basic principles of the plumbing trade. Topics include safety, terms, definitions, theory, troubleshooting, tools, equipment, materials, OSHA regulations and information, first aid, and introduction to Plumbing Code.

Course #	Start	Days	Hours	Location	Cost
520-A	Oct. 4	M & W	6:00-9:00	Hackensack Room 47	\$867

Frank Bocchino: fraboc@bergen.org

## Plumbing Skills, Techniques, and Fundamentals (78 hrs.) 521-N (Spring Semester Only)

This course provides the theory, techniques, and fundamentals of plumbing. Topics include pipe sizing, calculations, layout, connection and installation of water lines, and materials standards.

Course #	Start	Days	Hours	Location	Cost
521-N	Jan. 19	M & W	6:00-9:00	Hackensack Room 44	\$867

Frank Bocchino: fraboc@bergen.org

## Installation & Maintenance of Fixtures, Appliance, & Equipment of Plumbing Systems (78 hrs.) 522-A (Fall Semester Only)

This course provides a review of plumbing code requirements, layout, joints and connections by code, design, and the maintenance of plumbing equipment and systems. Traps and bathroom layouts will be reviewed. Lecture will be used to expose the student to the theory and knowledge needed for plumbing installation and maintenance.

Course #	Start	Days	Hours	Location	Cost
522-A	Oct. 4	M & W	6:00-9:00	Hackensack Room 45	\$867

Mark Bocchino: marboc@bergen.org

## Technical Math for Plumbing (78 hrs.) 523-N (Spring Semester Only)

This course teaches basic math, algebra, geometry, mathematical formulas, measurements, calculations, equations, and site levels used in the plumbing trade.

Course #	Start	Days	Hours	Location	Cost
523-N	Jan. 19	M & W	6:00-9:00	Hackensack Room 45	\$867

Mark Bocchino: marboc@bergen.org

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**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

### Water Sizing & Gas Sizing (78 hrs.) 524-A (Fall Semester Only)

This course will develop the theory and skills needed to properly size water, gas, and csg gas piping services. Topics will include building requirements, fixture and equipment needs, calculations for water fixture units, and blueprints and sizing. Test requirements for code approval will be stressed along with the effects of improper water pressure.

Course #	Start	Days	Hours	Location	Cost
524-A	Oct. 4	M & W	6:00-9:00	Hackensack Room 48	\$867

Ray keeley: raykee@bergen.org

### Blueprint Reading, Estimating, and Drawings for Plumbers (78 hrs.) 525-N (Spring Semester Only)

Interpretation, development, and evaluation of blueprints and drawings, estimation of materials and labor using approximate and detail methods. Architectural symbols needed to read and understand blueprints will be reviewed during class.

Course #	Start	Days	Hours	Location	Cost
525-N	Jan. 19	M & W	6:00-9:00	Hackensack Room 42	\$867

Ray keeley: raykee@bergen.org

### Heating, Hot Water / Steam Systems, Hydronics (78 hrs.) 526-A (Fall Semester Only)

Review theory, maintenance, installation, wiring and troubleshooting of heating systems, & radiant heating. Mechanical and gas codes will be reviewed.

Course #	Start	Days	Hours	Location	Cost
526-A	Oct. 4	M & W	6:00-9:00	Hackensack Room 42	\$867

Tony Citarella: toncit@bergen.org

### Drainage & Vent Systems (78 hrs.) 527-N (Spring Semester Only)

Design, sizing, and installation of soil, waste, and vent systems. Code requirements, DWV systems, and servicing pumps will be reviewed.

Course #	Start	Days	Hours	Location	Cost
527-N	Jan. 19	M & W	6:00-9:00	Hackensack Room 48	\$867

Tony Citarella: toncit@bergen.org

### NJ Master License Preparation for Plumbers (25 hrs.) 517-A, 517-N

This course prepares recognized plumbing journeypersons to sit for the New Jersey Master Plumber's Licensing Examination. Review covers all areas encompassed by the examination. Topics include plumbing applications, mathematics fundamental to plumbing, National Standard Plumbing Code, business law (as related to the trade), and human relations. State eligibility requirements: an applicant must be 21 years of age and must have five years of experience in the plumbing industry, three of which must be as a journeyperson.

Course #	Start	Days	Hours	Location	Cost
517-A	Oct. 4	M & W	6:00-9:00	Hackensack Room 43	\$290
517-N	Jan. 19	M & W	6:00-9:00	Hackensack Room 43	\$290

Jack Panzarella: jacpan@bergen.org

### Approved NJ HVAC License Renewal (5 hrs.) 519-N, 519-O, 519-P, 519-Q, 519-R, 519-S

The State of New Jersey mandates this course for all HVAC License Renewal. Topics include business law, OSHA, code updates and ADA requirements. State licensed instructors teach the class. (**Prerequisite:** Students must bring their own copy of the current N.S.P.C. Rules and Regulations of the Board of Master Plumbers, photo ID, and current HVAC license.)

Course #	Start	Days	Hours	Location	Cost
519-N	Jan. 8	Saturday	8:00-2:00	Hackensack Adult Ed. Bldg.	\$134
519-O	Feb. 5	Saturday	8:00-2:00	Hackensack Adult Ed. Bldg.	\$134
519-P	March 5	Saturday	8:00-2:00	Hackensack Adult Ed. Bldg.	\$134
519-Q	April 16	Saturday	8:00-2:00	Hackensack Adult Ed. Bldg.	\$134
519-R	May 14	Saturday	8:00-2:00	Hackensack Adult Ed. Bldg.	\$134
519-S	June 4	Saturday	8:00-2:00	Hackensack Adult Ed. Bldg.	\$134

Garrett Pepe: garpep@bergen.org



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# ELECTRICAL TECHNOLOGY

This series of courses is designed for apprentices and electricians and can lead to the New Jersey State Electrical License. The courses cover all the required areas needed for the completion of the apprenticeship or the license exam. The theory and lab equipment are state-of-the-art. Topics include: electrical circuits, motors, motor controls, programmable controllers, fire alarms, security systems and license preparation.

For current licensing requirements, contact the State Board of Examiners of Electrical Contractors at 973-504-6410 or visit their website at <http://www.njconsumeraffairs.gov/elec/> Course locations and nights are subject to change.

## Electrical House Wiring I (72 hrs.) 606-A, 606-N

Basic electrical circuits used in the home are covered, including service installation, conduit wiring, BX and Romex wiring, and single pole switches for lamps and outlets. The class is taught in accordance with the National Electrical Code. Topics include: connection of three or more outlets on the same circuit, circuit designs, wiring safety, alternate methods of wiring and estimating.

Course #	Start	Days	Hours	Location	Cost
606-A	Oct. 4	M & W	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$765
606-N	Jan. 19	M & W	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$765

Dave Tarallo: [davtar@bergen.org](mailto:davtar@bergen.org)

## Electrical House Wiring II (72 hrs.) 615-A, 615-N

This course covers residential wiring in new and old construction. Topics covered are switches and outlets, boxes and connections, outdoor wiring, 200 Amp services, code requirements, 240 volt circuits, ceiling fans, attic fans, thermostats, swimming pools and hot tub code requirements and residential telephone, surround sound and cable TV wiring.

Course #	Start	Days	Hours	Location	Cost
615-A	Oct. 4	M & W	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$765
615-N	Jan. 19	M & W	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$765

Dave Tarallo: [davtar@bergen.org](mailto:davtar@bergen.org)

## Electrical Circuits I (78 hrs.) 600-A, 600-N

This course provides an introduction to voltage, current and resistance. Application of Ohm's Law, Watt's Law, and Kirchoff's Law to series, parallel and series-parallel combination circuits are covered. In addition, the factors affecting conductor resistance and current-carrying ability are reviewed. Other topics include application of magnetism, electromagnetics, and sources of voltage and mathematical instruction as needed.

Course #	Start	Days	Hours	Location	Cost
600-A	Oct. 5	T & Th	6:00-9:15	190 Hackensack Ave. Electrical Shop	\$867
600-N	Jan. 20	T & Th	6:00-9:15	190 Hackensack Ave. Electrical Shop	\$867

Dave Tarallo: [davtar@bergen.org](mailto:davtar@bergen.org)

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

**Great For Homeowners!**

## Electrical Circuits II (78 hrs.) 601-A, 601-N

This course provides an introduction to the components of alternating current and circuits. Single-phase, series and parallel, RL, RC and RLC circuits are examined and power factor determinations are made. Three-phase circuits including transformers are considered, as well as the concept of admittance, conductance, and susceptance. Other topics include the meters used in AC measurements, as well as resonance in series and parallel circuits. **(Prerequisite:** Course #600 or equivalent.)

Course #	Start	Days	Hours	Location	Cost
601-A	Oct. 5	T & Th	6:00-9:15	Paramus Room 131	\$867
601-N	Jan. 20	T & Th	6:00-9:15	Paramus Room 131	\$867

John Ramsthaler: [johram@bergen.org](mailto:johram@bergen.org)

## Motors, Generators, Transformers and the NEC (78 hrs.) 602-A, 602-N

Basic design and operation of transformers, DC/AC motors and generators are reviewed. Topics include shunt, series DC motors and squirrel cage, synchronous AC motors, three phase and single phase. The requirements of the National Electric Code (NEC) are presented for the installation of transformers and motors. **(Prerequisite:** Course #601 or equivalent.)

Course #	Start	Days	Hours	Location	Cost
602-A	Oct. 5	T & Th	6:00-9:15	Paramus Room 145B	\$867
602-N	Jan. 20	T & Th	6:00-9:15	Paramus Room 145B	\$867

Rob Piotrowski: [robpri@bergen.org](mailto:robpri@bergen.org)

## Motors and Generator Control Circuits (78 hrs.) 603-A, 603-N

This class covers various control devices used in motor and generator control circuits for speed, direction, starting and stopping. Basic relay LOGIC diagrams and troubleshooting are stressed. PLC controllers are introduced. **(Prerequisite:** Course #602 or equivalent.)

Course #	Start	Days	Hours	Location	Cost
603-A	Oct. 4	M & W	6:00-9:15	Paramus Room 131	\$867
603-N	Jan. 19	M & W	6:00-9:15	Paramus Room 131	\$867

Rob Piotrowski: [robpri@bergen.org](mailto:robpri@bergen.org)

## Programmable Controllers (PLC I) (78 hrs.) 608-A, 608-N

This hands-on course offers a comprehensive look at and use of programmable logic controllers, designing and programming automation control circuits to bring numerous projects to life. Students will learn the use of Graphic User Interface software to design, configure, download and upload working programs to live programmable logic controllers. (**Prerequisite:** Course #603 or equivalent and strong background in relay logic recommended.)

**ENROLLMENT IS LIMITED.**

Course #	Start	Days	Hours	Location	Cost
608-A	Oct. 5	T & Th	6:00-9:15	Paramus Room 107	\$867
608-N	Jan. 20	T & Th	6:00-9:15	Paramus Room 107	\$867

Eddy Nina: eddnin@bergen.org

## Fire Alarm, Security Systems and Estimating (78 hrs.) 613-A, 613-N

This class emphasizes heat detectors and horn/strobe annunciators using state of the art control panels, PIRs ionization and photocell smoke detectors. Topics include: Class A and Class B type installations, NFPA and NEC codes, multi-zone systems, annunciation, central station options, introduction to fiber optics, light signals transmission and receiving. Estimating topics will include the cost of labor, equipment, overhead and profit.

Course #	Start	Days	Hours	Location	Cost
613-A	Oct. 5	T & Th	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$867
613-N	Jan. 20	T & Th	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$867

Dan DeSena: dandes@bergen.org

## Electrical License Preparation I (78 hrs.) 604-A (Fall Semester Only)

This course prepares the student to sit for the New Jersey State Electrical License Examination. The course consists of an in-depth study of the latest edition of the National Electrical Code. Basic electrical fundamentals and calculations required for the licensure examination are reviewed in addition to the expanded fire alarm and business sections of the test. Fall and spring courses, #604 and #605 are necessary for comprehensive examination preparation. Nights are subject to change due to inclement weather and/or holidays.

Course #	Start	Days	Hours	Location	Cost
604-A	Oct. 4	M & W	6:00-9:00	200 Hackensack Ave. Room 235	\$867

Rich Heimbuch: richei@bergen.org

## Electrical License Preparation II (78 hrs.) 605-N (Spring Semester Only)

This course prepares the student to sit for the New Jersey State Electrical License Examination. Basic electrical fundamentals are reviewed as well as an in-depth study of the calculations required by the examination. The class also includes a review of the National Electrical Code, expanded fire alarm, and business sections of the test. Depending on the electrician's proficiency, this course can be taken on its own or following License Preparation I. Both courses are recommended for comprehensive examination preparation. Nights are subject to change due to inclement weather and/or holidays.

Course #	Start	Days	Hours	Location	Cost
605-N	Jan. 19	M & W	6:00-9:00	200 Hackensack Ave. Room 235	\$867

Rich Heimbuch: richei@bergen.org

**Late Fee:** Students registering for the first time, or current

students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

## Electrical Math and the National Electrical Code 630-A, 631-N

These modular based courses are designed for both apprentice training and for licensed electricians to obtain continuing education hours. The courses can be taken as a whole, or just the modules you are interested in. Broken into two semesters, basic and advanced, these courses will build upon your math skills and use of the National Electrical Code book. The module type format will allow students to focus on their weaker areas of the code.

Course #	Start	Days	Hours	Location	Cost
630-A	Oct. 4	M & W	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$867

Dan DeSena: dandes@bergen.org

## Basic (78 hrs.) 630-A (Fall Semester Only)

The basic course will review and strengthen your knowledge of Ohms Law and Watts Law as well as Series Circuit, Parallel Circuit Combination Circuit and Voltage Drop math calculations. It will then cover some of the many codes and tables used in our industry such as box fill, conductor sizing and protection, pipe sizing and residential service entrance calculations.

- **Module 1:** Ohms Law & Watts Law **Start** Oct. 4, 6 hours - \$67
- **Module 2:** Series and Parallel Circuits **Start** Oct. 11, 12 hours - \$134
- **Module 3:** Combination Circuits **Start** Oct. 25, 12 hours - \$134
- **Module 4:** Voltage Drop Calculations – NEC Table 8 Chapter 9 **Start** Nov. 8, 6 hours - \$67
- **Module 5:** Box Fill – NEC Article 314 **Start** Nov. 15, 3 hours - \$34
- **Module 6:** Conductor Sizing – NEC Articles 110.14; 310.15 **Start** Nov. 17, 15 hours - \$167
- **Module 7:** Grounding Conductors and Pipe Sizing – NEC Articles 250; Chap 9 **Start** Dec. 8, 12 hours - \$134
- **Module 8:** Residential Service Calculations – NEC Article 220 **Start** Jan. 3, 9 hours - 101
- **Module 9:** Basic Generator Sizing **Start** Jan. 12, 3 hours - \$34

## Advanced (78 hrs.) 631-N (Spring Semester Only)

The advanced course will review mathematical calculations and formulas for Inductive, Capacitive, and RLC circuits. Designed to strengthen student's knowledge and use of AC formulas in series, parallel and combination circuits. It will then cover more of the codes and tables in the NEC for Multifamily and commercial service entrance calculations, Motor circuits and protection, pipe sizing and selection and transformer calculations.

Course #	Start	Days	Hours	Location	Cost
631-N	Jan. 24	M & W	6:00-9:00	190 Hackensack Ave. Electrical Shop	\$867

Dan DeSena: dandes@bergen.org

- **Module 10:** Inductance and Capacitance **Start** Jan. 24, 9 hours - \$101
- **Module 11:** Series RLC Circuits **Start** Feb. 2, 9 hours - \$101
- **Module 12:** Parallel RLC Circuits **Start** Feb. 16, 9 hours - \$101
- **Module 13:** Combination RLC Circuits **Start** Feb. 28, 9 hours - \$101
- **Module 14:** Multifamily Service Entrance Calculations – NEC Article 220 **Start** March 9, 6 hours - \$67
- **Module 15:** Commercial Service Entrance Calculations – NEC Article 220 **Start** March 16, 6 hours - \$67
- **Module 16:** Conductor and Conduit Sizing – NEC Articles 110.14; 310.15; Chap 9 **Start** March 23, 6 hours - \$67
- **Module 17:** Transformer Calculations **Start** April 11, 6 hours - \$67
- **Module 18:** Motor Circuit Calculations and Connection 1 – NEC Article 430 **Start** April 18, 9 hours - \$101
- **Module 19:** Motor Circuit Calculations and Connection 2 – NEC Article 430 **Start** April 27, 9 hours - \$101

# HVAC/R APPRENTICE

This series of courses is designed for apprentices and can lead to the New Jersey State HVAC/R License. The courses cover all the required areas needed for the completion of the apprenticeship or the license exam. Classes will be in the form of lecture, in-shop demonstrations and power point slides that highlight key concepts of the HVAC/R Apprenticeship Program.

For current licensing requirements, contact the State Board of Heating, Ventilating, Air Conditioning & Refrigeration (HVAC/R) Contractors at 973-504-6250 or visit their website at <http://www.njconsumeraffairs.gov/hvacr/>.

**Course locations and nights are subject to change. See apprenticeship coordinator for start dates and nights.**

## Introduction to HVAC/R (78 hrs.) 640-A (Fall Semester Only)

This course contains an overview of the domestic, commercial and industrial refrigeration and air conditioning field. Introduction to systems and major components, basic electricity, thermodynamics and the basic refrigeration cycle will be heavily stressed and reviewed as well as basic tools and instruments used by the technician. Learning objectives include the many diverse careers in the HVAC/R field.

Course #	Start	Days	Hours	Location	Cost
640-A	Oct. 4	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$867

## Fundamentals of Basic Electrical Theory (78 hrs.) 641-N (Spring Semester Only)

This course covers instruction in the fundamentals of basic electrical theory. The student will master the principles of refrigeration as well as the operations and servicing of all refrigeration equipment. Topics will include types of refrigerants and their uses, layout and design of components, motor controls, switches, gauges, wiring, harnesses, valves, pumps, condensers and trouble shooting. This course will prepare students for an EPA approved A/C Certification Test. **Upon completion of Course 102-N, a proctored certified examination (Type I, II, II and Universal) will be given. The student must have an 80% pass rate to become certified.**

Course #	Start	Days	Hours	Location	Cost
641-N	Jan. 19	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$867

## Domestic, Commercial and Industrial Refrigeration and Air Conditioning Systems (78 hrs.) 642-A (Fall Semester Only)

The second year of the apprenticeship program includes a more in-depth view of domestic, commercial and industrial refrigeration and air conditioning systems. Topics are revisited with additional emphasis on application which is to coincide with the student's increasing work experience in the field. The aim is to build upon the classroom objectives that the student has covered in this program, to date.

Course #	Start	Days	Hours	Location	Cost
642-A	Oct. 5	T & Th	6:00-9:00	Hackensack HVAC Technical Center	\$867

## Trouble Shooting of Systems (78 hrs.) 643-N (Spring Semester Only)

This capstone course of the apprenticeship program will prepare the student for in-depth work in the commercial and residential HVAC/R field. Topics that will be covered are: Heating, Electrical, Motors, Trouble shooting, Control systems, Evacuation and charging procedures, Metering devices, Condensers, Refrigeration lubrication and Compressors. Heavy emphasis will be on trouble shooting of systems. Learning objectives include the many diverse careers in the HVAC/R field.

Course #	Start	Days	Hours	Location	Cost
643-N	Jan. 20	T & Th	6:00-9:00	Hackensack HVAC Technical Center	\$867

## Commercial Industrial HVAC/R Application & Trouble Shooting (78 hrs.) 644-A (Fall Semester Only)

A continuation of the solid skills development and strong theoretical knowledge covering increasingly advanced concepts in the field. Coverage ranges from the troubleshooting of systems and components to concepts of fluid handling systems, cooling towers, and indoor air quality. With a building block approach that ensures readers comprehend simpler concepts before moving on to more complex information.

Course #	Start	Days	Hours	Location	Cost
644-A	Oct. 4	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$867

Louis Leichtweisz: [loulei@bergen.org](mailto:loulei@bergen.org)

## Advance Trouble Shooting and Problem Solving for Commercial HVAC (78 hrs.) 645-N (Spring Semester Only)

This course covers more in-depth overview and instruction for the commercial HVAC industry. It will acclimate the student to troubleshooting and problem solving skills. Topics will include system start up, cause and effect, benefits of scheduled maintenance, water treatment, and IAQ (Indoor Air Quality). Equipment covered will be cooling towers, evaporative condensers, centrifugal and screw compressors. Learning objective will be to familiarize the student with the commercial industry.

Course #	Start	Days	Hours	Location	Cost
645-N	Jan. 19	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$867

Louis Leichtweisz: [loulei@bergen.org](mailto:loulei@bergen.org)

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**



## Air Cooled Heat-Pump Systems, Operation and Service (78 hrs.) 646-A (Fall Semester Only)

This course details the heat pump reversing cycle as compared to a conventional refrigeration cycle and the duties of the outdoor coil versus the indoor coil. It will also cover heat pump components, piping, defrost control, and electrical devices such as heat pump thermostats, motors, compressors, and types of capacity control as well as heat-pump wiring diagrams. Included will be Air Source Heat-Pumps ( ASHP ) installation, troubleshooting, and scheduled maintenance.

Course #	Start	Days	Hours	Location	Cost
646-A	Oct. 4	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$867

Louis Leichtweisz: loulei@bergen.org

## Geothermal and Water Cooled Heat-Pumps with Systems Sizing and Design (78 hrs.) 647-N (Spring Semester Only)

This course goes into detail of Water Source Heat Pumps ( WSHP ) and geothermal heat pumps including installation types, sequence of operation, troubleshooting, and scheduled maintenance. Types of system piping configuration will be discussed incorporating open and closed loop heat pump systems as well as system sizing and design, energy efficient calculations such as Energy Efficient Ratio (EER) and Season Energy Efficient Ratio (SEER).

Course #	Start	Days	Hours	Location	Cost
647-N	Jan. 19	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$867

Louis Leichtweisz: loulei@bergen.org

# HVAC/Non-Apprentice

Course locations and nights are subject to change.

## Commercial Air Conditioning (72 hrs.) 651-A, 651-N

This is a capstone course for students who are preparing for commercial field work. Topics include: installation and repair of commercial cooling systems, rebuilding compressors, troubleshooting, refrigerant circuit problems, and various types of system components. Extensive work will be done on electrical circuit problems. (**Prerequisite:** Course #650)

Course #	Start	Days	Hours	Location	Cost
651-A	Oct. 4	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$824
651-N	Jan. 19	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$824

## Electrical Controls for HVAC (72 hrs.) 654-A, 654-N

This course covers electrical control equipment utilized in HVAC with a special emphasis on conservation of energy sources. Topics include the theory of energy management, controls and computers, and the installation, calibration and servicing of energy management control equipment. (**Prerequisite:** Course #650 and #651 or #652)

Course #	Start	Days	Hours	Location	Cost
654-A	Oct. 5	T & Th	6:00-9:00	Hackensack HVAC Technical Center	\$824
654-N	Jan. 20	T & Th	6:00-9:00	Hackensack HVAC Technical Center	\$824

## Residential Air Conditioning (72 hrs.) 652-A, 652-N

This course presents theory of the cooling principle and a detailed study of the mechanical and electrical components of window units and home central systems. Proper repair procedure is emphasized during the shop training sessions. Additional topics include: replacement of compressors, estimating unit size for installation, and electrical wiring diagrams. (**Prerequisite:** Course #650)

**Great For Homeowners!**

Course #	Start	Days	Hours	Location	Cost
652-A	Oct. 5	T & Th	6:00-9:00	Hackensack HVAC Technical Center	\$824
652-N	Jan. 20	T & Th	6:00-9:00	Hackensack HVAC Technical Center	\$824

## Principles of Operation of Gas, Electric and Oil Heating Systems (72 hrs.) 660-A, 660-N

This course is to introduce the operation and design of heating systems including hot air, hot water, and steam. Installation, control systems, maintenance, troubleshooting and service will be reviewed. The class will include basic theory, and hands-on experiences on lab trainers, simulators, and working systems.

**Great For Homeowners!**

Course #	Start	Days	Hours	Location	Cost
660-A	Oct. 4	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$824
660-N	Jan. 19	M & W	6:00-9:00	Hackensack HVAC Technical Center	\$824

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**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

# CARPENTRY

Course locations and nights are subject to change.

## Blueprint Reading, Estimating, and Construction Math (72 hrs.) 500-A, 500-N

This course will culminate on the practical application of mathematical calculations gained by using an architects scale or engineers scale in finding area, volume, mass and materials needed. All of the basic calculations and equations that are needed will be covered as well as measurement systems and techniques as foundation for the Site Layout and Measurement course.

Course #	Start	Days	Hours	Location	Cost
500-A	Oct. 5	T & Th	6:00-9:00	190 Hackensack Ave. Room 119	\$770
500-N	March 3	T & Th	6:00-9:00	190 Hackensack Ave. Room 119	\$770

Kevin Rager: kevrag@bergen.org

## Site Layout and Surveying (72 hrs.) 562-A, 562-N

This course will focus on the application of surveying and engineering instruments in layout of foundations and overall building construction. The core tools will be a builders level, transit, theodolite and total station, as well as more modern laser equipment.

Course #	Start	Days	Hours	Location	Cost
562-A	Oct. 4	M & W	6:00-9:00	190 Hackensack Ave. Room T.B.A.	\$770
562-N	March 2	M & W	6:00-9:00	190 Hackensack Ave. Room T.B.A.	\$770

Kevin Rager: kevrag@bergen.org

## Concrete and Masonry: Block, Brick, Stone and Veneer (72 hrs.) 505-A (Fall Semester Only)

This course will go through formwork for foundations, footings and flatworks forms, as well as brick, block and stone in architectural decoration, and functional applications.

Course #	Start	Days	Hours	Location	Cost
505-A	Oct. 5	T & Th	6:00-9:00	Paramus Carpentry Shop	\$770

## Deck/Porch Building (72 hrs.) 572-N (Spring Semester Only)

Students enrolling in this course will learn the skills necessary to design and construct a code-compliant deck for a residential application. Students will learn how to prepare the foundation for the deck supports, as well as how to use span tables to size joists properly and how to connect the deck structure to the house. Special emphasis will be placed on guard rail and handrail attachments, bracing and flashing. Simple stair-building will also be covered.

Course #	Start	Days	Hours	Location	Cost
572-N	March 3	T & Th	6:00-9:00	Paramus Carpentry Shop	\$808

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

## Home Improvement & General Contracting 1 (72 hrs.) 574-A, 574-N

A comprehensive house building course that through a hands-on approach covers a wide variety of building skills and techniques. This course will take students through many of the steps of house construction & home maintenance, as we build a small scale mock house. This course will include the following:

- Introduction to general tool safety and knowledge
- How to frame sub-floors and walls
- Install interior and exterior doors, and windows
- Wire and install outlets and lighting
- Install and repair of Sheetrock and spackle
- Install laminate flooring

This course is designed to give novice construction enthusiasts the skills they need to tackle home improvement projects or begin a career in the construction field. **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
574-A	Oct. 4	M & W	6:00-9:00	Paramus Carpentry Shop	\$808
574-N	Feb. 2	M & W	6:00-9:00	Paramus Carpentry Shop	\$808

Brad Bartone: brabar@bergen.org

## Home Improvement & General Contracting 2 (72 hrs.) 575-N

A continuation of Home Improvement & General Contracting 1.

This course will include the following:

- Introduction to general tool safety and knowledge
- Install kitchen cabinets, countertops and backsplash
- Install and replace bathroom fixtures
- Install ceramic tile floors
- Custom moulding and trim work

This course is designed to give novice construction enthusiasts the skills they need to tackle home improvement projects or begin a career in the construction field. **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
575-N	Feb. 3	T & Th	6:00-9:00	Paramus Carpentry Shop	\$808

Brad Bartone: brabar@bergen.org



# COLLISION REPAIR

This series of courses is designed for the entry level, apprentice, and "C" level technician, and can lead to employment in the collision repair industry, as well as one or more ASE certifications based upon the individuals desire to study and sit for the examinations. The course covers all the required areas needed for the preparation for ASE exams. The theory and lab equipment are state-of-the-art. Topics include: welding, paint/refinish, structural/non-structural repair and estimating. Program graduates will be qualified to accept positions as entry-level technicians in the collision repair industry.

**Course locations and nights are subject to change.**

## **Introduction to Collision Repair (42 hrs.) 150-A (Fall Semester Only)**

This is an introductory course that teaches students the basic skills in the collision repair field, and serves as a foundation for all subsequent areas of studies. The principles learned in this course will familiarize the student with the field, helping the student to assess if this is the career he or she desires to pursue.

Course #	Start	Days	Hours	Location	Cost
150-A	Oct. 4	M & W	6:00-9:15	Paramus	\$509

Louis May: [loumay@bergen.org](mailto:loumay@bergen.org)

## **Non-Structural Analysis and Damage Repair (42 hrs.) 151-A (Fall Semester Only)**

The principles learned in this course will prepare the student to accomplish the essential tasks of analyzing, preparing, and performing damage repair through adjustments or replacement of parts. These tasks are essential to those aspiring to work in the auto body repair profession.

Course #	Start	Days	Hours	Location	Cost
151-A	Nov. 29	M & W	6:00-9:15	Paramus	\$509

Louis May: [loumay@bergen.org](mailto:loumay@bergen.org)



## **Auto Body Welding Principles and Techniques (42 hrs.)**

### **153-N (Spring Semester Only)**

This course will enable the student to be acquainted with the basic skills in auto body welding. An emphasis is placed on safety, protective clothing, tools, and equipment procedures and techniques of MIG welding. The principles learned in this course will allow the student to be familiar with the welding aspects of auto collision repair. As welding is a major function of auto repair, this course will better prepare the student to enter a career in auto body repair.

Course #	Start	Days	Hours	Location	Cost
153-N	Jan. 26	M & W	6:00-9:15	Paramus	\$509

Louis May: [loumay@bergen.org](mailto:loumay@bergen.org)

## **Paint Damage Analysis (42 hrs.) 154-N (Spring Semester Only)**

The student will analyze the types of damage caused by weather, chemicals, or collision, and calculate the refinish time involved. The student will also be involved in the preparation of the substrate as well as the application of the topcoat. Topics for discussion will be the special effects and the process to refinish composite and flexible parts. A portion of the theory will expose the student to some aspects of shop and material management.

Course #	Start	Days	Hours	Location	Cost
154-N	March 21	M & W	6:00-9:15	Paramus	\$509

Louis May: [loumay@bergen.org](mailto:loumay@bergen.org)

## **Plastics and Adhesives (30 hrs.) 152-N (Spring Semester Only)**

This course will enable the student to repair auto bodies using plastics and adhesives. This course will also enable the student to perform safely when mixing and handling chemicals. The principles learned in this course will allow the student to understand and utilize the techniques and methods necessary to repair auto bodies with plastics and adhesives. These techniques and methods are essential for those aspiring to work in the auto body repair profession.

Course #	Start	Days	Hours	Location	Cost
152-N	May 11	M & W	6:00-9:15	Paramus	\$343

Louis May: [loumay@bergen.org](mailto:loumay@bergen.org)

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

# COMPUTER TRAINING FOR THE PC

Training is provided on Windows computers and iPads with the latest operating systems and most popular software applications. New users can feel comfortable to start hands-on training with the basics. **Enrollment Is Limited To 14 Students. Course locations and nights are subject to change.**

## Computer Basics and the Internet (27 hrs.)

### 300-A, 300-N

This introductory course explains the basics of how to use a computer, mouse and keyboard, save files, and cloud storage. You will be briefly introduced to Word, Excel, PowerPoint, and gain an understanding of the Internet and how it is used, including how to connect and search in an effective and safe way, email basics, uploading, downloading and social networking. Practice is applied by visiting popular websites. If you are a beginner, this course is also an important prerequisite for other classes offered.

Course #	Start	Days	Hours	Location	Cost
300-A	Oct. 5	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$460
300-N	Jan. 25	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$460

## Microsoft Word (24 hrs.)

### 303-A, 303-N

This hands-on course teaches you how to create documents, such as flyers and letters. Learn how to format text, import pictures, cut, copy, paste, spell check, save, print, add styles and themes, headers and footers, page breaks, tables, columns, and templates.

(Prerequisite: Course #300, or basic computer knowledge.)

Course #	Start	Days	Hours	Location	Cost
303-A	Nov. 9	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$407
303-N	March 1	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$407

## Microsoft Excel (24 hrs.)

### 301-A, 301-N

Learn to create spreadsheets that can be used for storing, organizing and manipulating numbers and other data. Acquire skills to create basic formulas, format cells and worksheets, create colorful charts, save files, linking, produce conditional formatting, and perform "what if" analysis.

(Prerequisite: Course #300, or basic computer knowledge.)

Course #	Start	Days	Hours	Location	Cost
301-A	Dec. 9	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$407
301-N	March 29	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$407

All classes on page EXCEPT PhotoShop from the PC taught by Debbie Lawrence: [deblaw@bergen.org](mailto:deblaw@bergen.org)

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

## Microsoft PowerPoint (15 hrs.)

### 304-N, 304-O (Spring Semester Only)

An effective presentation software that is widely used in work environments, classrooms, meetings and family events. Learn how to prepare professional presentations that include graphics, pictures, sound, animations and transitions that can be viewed on the computer or on a large screen. Designed to be easy and fun to use and learn.

(Prerequisite: Course #300, or basic computer knowledge.)

Course #	Start	Days	Hours	Location	Cost
304-N	Jan. 4	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$278
304-O	May 3	T & Th	6:00-9:00	200 Hackensack Ave. Room 152	\$278

## Finding Jobs on the Internet (9 hrs.)

### 318-A, 318-N

Finding jobs using today's technology can be a challenge. Learn how to upload your resume, use job site, such as Indeed.com, and create a professional and positive online presence using LinkedIn.

Course #	Start	Days	Hours	Location	Cost
318-A	Oct. 11	M & W	6:00-9:00	200 Hackensack Ave. Room 152	\$161
318-N	Jan. 10	M & W	6:00-9:00	200 Hackensack Ave. Room 152	\$161

## Introduction to Google Drive (15 hrs)

### 350-A, 350-N

Get to know the iPad and learn its many features. Learn how to navigate, Learn what Google Drive is and how to use it; including how to store files in the cloud, share, and collaborate with others on this free web-based application. This course also includes how to create documents, spreadsheets, and presentations through Google Docs, Sheets, and Slides. Learn how to access these files from your PC, laptop, tablet, and/or smartphone. Find out what makes Google Drive so popular and easy to use.

Course #	Start	Days	Hours	Location	Cost
350-A	Nov. 3	M & W	6:00-9:00	200 Hackensack Ave. Room 152	\$107
350-N	Feb. 28	M & W	6:00-9:00	200 Hackensack Ave. Room 152	\$107

## PhotoShop for the PC (12 hrs.)

### 327-A, 327-N

You will learn the basics as well as some advanced features of PhotoShop to create amazing images. The class covers how to open and edit files, optimize images for print and the Internet, basic color and tonal adjustments, and using filters for dramatic effects. (Prerequisite: Course #300 or equivalent)

Course #	Start	Days	Hours	Location	Cost
327-A	Oct. 9	Saturday	9:00-1:00	200 Hackensack Ave. Room 152	\$214
327-N	March 5	Saturday	9:00-1:00	200 Hackensack Ave. Room 152	\$214

Peter Guthrie: [petgut@bergen.org](mailto:petgut@bergen.org)

# TECHNICAL COMPUTER TRAINING

BCTS continues to pioneer many up-to-date technology-related activities to keep you current. As a leader in many technical areas, BCTS offers the very latest equipment, software and training methods. Our classes can help you plan and implement productivity improvements in small manufacturing environments ... or launch and maintain a network ... or engage in design and solid modeling projects using the latest release of AutoDesk software.

**Course locations and nights are subject to change. Basic computer skills required.**

## AUTODESK PREMIER TRAINING CENTER

### Introduction to AutoCad (24 hrs.)

#### 380-A, 380-N

This course is designed as an introduction to computer aided drafting with Autodesk AutoCAD software. Students gain the necessary skills to create and edit geometric shapes in preparation for engineering drawings. The course covers many aspects of AutoCAD including file management, construction of primitive geometrical shapes and entity manipulation. Instructor lectures and demonstrations followed by hands-on student work. Equipment includes high-end Dell workstations.

**ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
380-A	Oct. 4	M & W	6:00-9:00	200 Hackensack Ave. Room 166	\$434
380-N	Jan. 19	M & W	6:00-9:00	200 Hackensack Ave. Room 166	\$434

### Introduction to Autodesk Inventor and 3D Printing (24 hrs.)

#### 383-A, 383-N

This course is designed as an introduction to Autodesk Inventor and the steps necessary to create and edit parts, assemblies and drawings. The primary objective of this course is to teach the essential skills needed for parts of simple to moderate complexity. Also included is an introduction to 3D Printing, with the goal of fabricating student designs on our 3D printers. Instructor lecture and demonstrations followed by hands-on student work. Equipment includes high-end Dell workstations, MakerBot Replicators and Dimension SST 1200es 3D Printers. (Prerequisite: Course #380 or equivalent.) **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
383-A	Nov. 8	M & W	6:00-9:00	200 Hackensack Ave. Room 166	\$434
383-N	Feb. 28	M & W	6:00-9:00	200 Hackensack Ave. Room 166	\$434

### Autodesk Revit (24 hrs.)

#### 375-A, 375-N

This course is designed as an introduction to architectural design and the necessary tools to create and edit geometric shapes in preparation for blueprints. The course covers many aspects of Revit software including file management, construction of primitive geometrical shapes, and entity manipulation. Students will also learn to enhance productivity with library symbols, layer organization, advanced drafting techniques, and various output methods. Instructor lecture and demonstrations followed by hands-on student work. Course includes an exploration into architectural styles and design factors. It ends with a demonstration of 3D modeling and architectural walkthroughs. This course enables all students to have an introductory overview of the architectural design process. (Prerequisite: Course #380 or equivalent.) **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
375-A	Nov. 8	M & W	6:00-9:00	200 Hackensack Ave. Room 164	\$434
375-N	April 11	M & W	6:00-9:00	200 Hackensack Ave. Room 164	\$434

### Introduction to CNC Programming and Laser Cutting (24 hrs.)

#### 379-N

This course provides a basic understanding of Numerical Control programming, system positioning and file transfer. Setup, operation and maintenance procedures of CNC equipment also discussed. Instructor lecture and demonstrations followed by hands-on student work. Course includes a review of AutoCAD and an introduction to basic G code programming. Equipment includes high-end Dell workstations, Davinci Mini CNC Milling Machine and Epilog Helix 60 watt Laser Cutter/Engraver. (Prerequisite: Course #380 or equivalent.)

**ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
379-N	May 16	M & W	6:00-9:00	200 Hackensack Ave. Room 166	\$434



**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

## COMPTIA CERTIFICATION PATHWAY

**CompTIA Courses**

BCTS is proud to offer the entire CompTIA Certification Pathway to our students.

We know that IT support professionals work with critical-path teams, including security operations center (SOC) team members, cloud and network administrators, and applications analysts. These teams offer a glimpse of future options and a gateway to career advancement.

CompTIA is the key to unlocking these options and setting you on the IT career pathway of your choosing. Whether it is Infrastructure, Cybersecurity and Professional Skills, they all offer a world of opportunities for growth.

CompTIA certifications align with the skillsets needed to support and manage IT infrastructure and security. Enter where appropriate for you. Consider your experience and existing certifications or course of study today.

**NOTE: The cost of the exam voucher is NOT INCLUDED with this these courses. It is up to the student acquire them.**

### CompTIA A+ Certification & Networking ((Hardware and Software) (Core 1 and Core 2) (60 hrs.) 401-A, 401-N

CompTIA A+ is the preferred qualifying credential for technical support and IT operational roles. CompTIA A+ certified professionals are proven problem solvers. They support today's core technologies from security to cloud to data management and more. CompTIA A+ is the industry standard for launching IT careers into today's digital world.

CompTIA A+ 220-1001 covers mobile devices, networking technology, hardware, virtualization and cloud computing and network troubleshooting. CompTIA A+ 220-1002 covers installing and configuring operating systems, expanded security, software troubleshooting and operational procedures.

In order to receive the CompTIA A+ certification, you must pass two exams: Core 1 (220-1001) and Core 2 (220-1002) which will be covered in this course. **NOTE: Exam voucher is NOT INCLUDED with this class.**

Course #	Start	Days	Hours	Location	Cost
401-A	Oct. 4	M & W	6:00-9:00	190 Hackensack Ave. Room 111	\$1039
401-N	Jan. 19	M & W	6:00-9:00	190 Hackensack Ave. Room 111	\$1039

Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)

### CompTIA Network+ (48 hrs.) 423-A, 423-N

This course is for students who are preparing for the CompTIA Network+ certification exam N10-007. This course is intended for entry-level computer support professionals with a basic knowledge of computer hardware, software, and operating systems who wish to increase their knowledge and understanding of networking concepts and acquire the required skills to prepare for a career in network support or administration. **(Prerequisite: Course #401, CompTIA A+.)**

**NOTE: Exam voucher is NOT INCLUDED with this class.**

Course #	Start	Days	Hours	Location	Cost
423-A	Oct. 5	T & Th	6:00-9:00	190 Hackensack Ave. Room 111	\$856
423-N	Jan. 20	T & Th	6:00-9:00	190 Hackensack Ave. Room 111	\$856

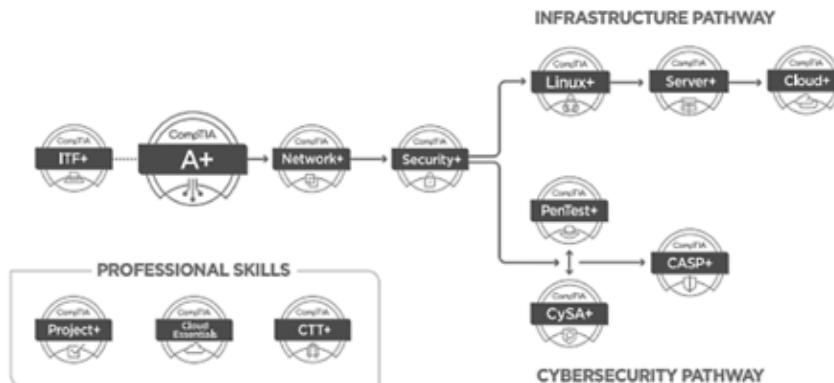
Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)

**Coming  
Soon**

### CompTIA Security+ (48 hrs.) 424

This course is for students who are preparing to take the CompTIA Security+ certification exam SY0-501. This course is aimed toward the IT professional who has networking and administrative skills in Windows-based Transmission Control Protocol/Internet Protocol (TCP/IP) networks; plus familiarity with other operating systems, such as macOS, Unix or Linux; and who wants to further a career in IT by acquiring foundational knowledge of security topics. The exam will verify the successful candidate has the knowledge and skills required to assess the security posture of an enterprise environment and recommend and implement appropriate security solutions; monitor and secure hybrid environments, including cloud, mobile, and IoT; operate with an awareness of applicable laws and policies, including principles of governance, risk, and compliance; identify, analyze, and respond to security events and incidents. **Prerequisite:** CompTIA Network+. Students should have basic Windows user skills and a fundamental understanding of computer and networking concepts. Achievement of CompTIA A+ and Network+ certifications, plus two years of experience with IT administration with a security focus. **NOTE: Exam voucher is NOT INCLUDED with this class.**

Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)



**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**



## REGIONAL CISCO NETWORKING ACADEMY

**Cisco Networking Academy/  
CCNA Part 1 (72 hrs.)  
393-A (Fall Semester Only)**

This course introduces students to the basics of networking. The course is three parts. The first part covers various types of networks and how they work. Students learn the following fundamentals: networks and layered communication, OSI model, networking devices such as hubs, routers, switches and bridges; IP addressing and sub netting, media and design, LAN and WAN hardware, coaxial, UTP, optical fiber cable, and topologies. **There may be some changes due to the restructuring of the new class being rolled out this year. (Prerequisite:** Students should have at least one to two years experience in either the Mac OS or Windows. Students should have access to Internet.) **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
393-A	Oct. 2	Sat.	8:30 - 3:30 (1/2 hr lunch)	200 Hackensack Ave. Room 164	\$1575

Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)

**Cisco Networking Academy/  
CCNA Part 2 (68 hrs.)  
394-N (Spring Semester Only)**

In the second part students will learn: OSI model layers, router components, router start/up, router configuration, CISCO IOS software (operating system), TCP/IP model, and routing protocols. **There may be some changes due to the restructuring of the new class being rolled out this year. (Prerequisite:** Students must successfully complete Part 1 Training (course #393) and have home access to the Internet.) **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
394-N	Jan. 22	Sat.	8:30 - 3:30 (1/2 hr lunch)	200 Hackensack Ave. Room 164	\$1490

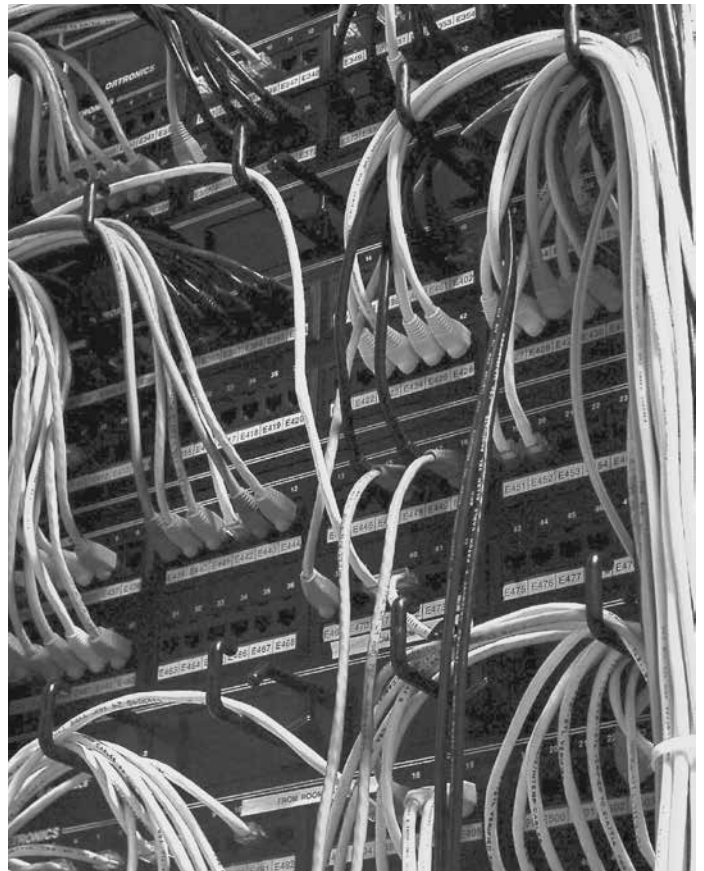
Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)

**Cisco Networking Academy/  
CCNA Part 3 (56 hrs.)  
395-N (Spring Semester Only)**

Through e-learning and a hands-on approach, students will learn the protocols network standards and router programming that is in the CISCO System products. Students will gain classroom and laboratory experience that empower them to enter employment and/or further education and training in the computer networking field. Topics include LAN switching, VLANs, network design, IGRP protocol, access lists, WAN, network design, point-to-point protocol, frame relay and a final review of the CCNA exam. **There may be some changes due to the restructuring of the new class being rolled out this year. (Prerequisite:** Students must successfully complete Part 1 & 2 Training (courses #393 & #394) and have home access to the Internet.) **ENROLLMENT IS LIMITED TO 12 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
395-N	April 23	Sat.	8:30 - 3:30 (1/2 hr lunch)	200 Hackensack Ave. Room 164	\$1225

Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)



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**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

# OFFICE 365 & MICROSOFT 365 CERTIFICATION PROGRAM

**New  
Courses!**

**What is Office 365?** It is a cloud-based subscription service that brings together the best tools for the way people work today. By combining best-in-class apps with powerful cloud services, Office 365 lets anyone create and collaborate anywhere on any device.

**What is Microsoft 365?** It is a complete, intelligent solution, including Office 365, Windows 10, and Enterprise Mobility + Security, that empowers everyone to be creative and work together, securely.

This certification program will give you the knowledge and skills to maximize the benefits of both Office 365 and Microsoft 365. You will learn how to configure, setup and administer all the Office 365 & Microsoft 365 products. You will have instructor lead classes and hands on time with all aspects and be proficient in explaining all programs and the benefits of them.

## We offer 2 different certifications:

**End User** (Covers Office 365) – We recommend this for everyone who uses Office 365. Especially those who work in a company or organization who uses Office 365. This will allow you to maximize everything Office 365 has to offer, making your life easier and more efficient.

**Administration** (Covers Office 365 & Microsoft 365)\* – We recommend this for Information Technology (I.T.) professionals who are responsible for a company or organizations Office 365 or Microsoft 365 environment.

## OFFICE 365 END USER CERTIFICATION

### Office 365 End User Certification Program (72 hrs.) M001:13-A, M001:13-N

**End User** (Covers Office 365) – We recommend this for everyone who uses Office 365. Especially those who work in a company or organization who uses Office 365. This will allow you to maximize everything Office 365 has to offer, making your life easier and more efficient.

(Prerequisite: Basic computer knowledge.)

Course #	Start	Days	Hours	Location	Cost
M001:13-A	Oct. 4	M & W	6:00-9:00	190 Hackensack Ave. Room 111	\$865
M001:13-N	Jan. 10	M & W	6:00-9:00	190 Hackensack Ave. Room 111	\$865

Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)

## OFFICE 365 & MICROSOFT 365 ADMINISTRATION CERTIFICATION

Prerequisite for this certification is completion of the End User certification.

### Office 365 Administration Certification Program (72 hrs.) M014:20-A, M014:20-N

**Administration** (Covers Office 365 & Microsoft 365)\* – We recommend this for Information Technology (I.T.) professionals who are responsible for a company or organizations Office 365 or Microsoft 365 environment. (Prerequisite for this certification is completion of the End User certification.)

Course #	Start	Days	Hours	Location	Cost
M014:20-A	Oct. 11	M & W	6:00-9:00	190 Hackensack Ave. Room 111	\$505
M014:20-N	May 2	M & W	6:00-9:00	190 Hackensack Ave. Room 111	\$505

Alex Chan: [alecha@bergen.org](mailto:alecha@bergen.org)



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**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

# FIREMEN – STATIONARY ENGINEERING

The New Jersey Department of Labor—Industry Mechanical Inspection Bureau establishes the licensing requirements. Although anyone may attend the license preparation classes, the specific work experience requirements must be met before a student is permitted to sit for a state examination. These requirements are described under each preparatory course outlined below. Students are also advised that firemen and engineer's licenses apply to the State of New Jersey only, since rules and regulations vary from state to state. Prospective students holding a Fireman's or Engineer's rating from military may apply work experience.

For current licensing requirements, contact the Bureau of Boiler and Pressure Vessel Compliance at 609-292-2345.

Course locations and nights are subject to change.

## Engineer, Blue Seal Steam (75 hrs.) 702-A (Fall Semester Only)

This course prepares qualified students to sit for the Blue Seal, Third Grade Steam Engineer's License examination. **State eligibility requires that an applicant must have a Fireman-in-Charge License and six months experience in a plant of over 500 boiler horsepower.**

Course #	Start	Days	Hours	Location	Cost
702-A	Oct. 5	T & Th	6:00-9:00	200 Hackensack Ave. Room 34	\$824

John Nesbitt: johnes@bergen.org

## Fireman, High Pressure Black Seal in Charge (75 hrs.) 703-N (Spring Semester Only)

This license preparation course enables qualified students to sit for the High Pressure Fireman's License examination. **State eligibility requires that an applicant must have worked as a Helper, Apprentice or Assistant to a Licensed Fireman in a high-pressure plant for at least three months.**

Course #	Start	Days	Hours	Location	Cost
703-N	Feb. 17	T & Th	6:00-9:00	200 Hackensack Ave. Room 34	\$824

John Nesbitt: johnes@bergen.org

## Fireman, Low Pressure Black Seal (48 hrs.) 705-A, 705-B, 705-N, 705-O, 705-P

Upon completion, qualified students will be able to sit for the Low Pressure Black Seal Fireman's License examination. **State eligibility requires that an applicant has worked for a minimum of three months as a Helper, Apprentice, or Assistant in a facility with low-pressure boilers of over 100 boiler horsepower, documented with a logbook.**

Course #	Start	Days	Hours	Location	Cost
705-A	Oct. 6	M & W	6:00-9:00	200 Hackensack Ave. Room 34	\$540
705-B	Oct. 9	Saturday	8:00-11:30	190 Hackensack Ave. Room 119	\$540
705-N	Jan. 5	M & W	6:00-9:00	200 Hackensack Ave. Room 34	\$540
705-O	Jan. 8	Saturday	8:00-11:30	190 Hackensack Ave. Room 119	\$540
705-P	March 14	M & W	6:00-9:00	200 Hackensack Ave. Room 34	\$540

John Nesbitt: johnes@bergen.org

## ELECTRO-MECHANICS

### Electro-Mechanic Maintenance (78 hrs.) 620-A (Fall Semester Only)

This two part course, one mechanical and the other electrical, covers the basic knowledge needed to start or progress in the areas of residential, commercial, or industrial maintenance.

The first session (fall): Mechanics (78 Hrs), covers basic mathematics, unit's conversion, basic concepts: pressure, vacuum, torque, bearings: different types, applications, lubrication, pumps: different types, applications, problems, repairs, valves and piping: selection, materials, applications, compressors: different types, applications, problems, repairs, boilers, blueprint reading, and safety.

Course #	Start	Days	Hours	Location	Cost
620-A	Oct. 4	M & W	6:00-9:15	Paramus Room T.B.A.	\$867

### Electro-Mechanic Maintenance (78 hrs.) 621-N (Spring Semester Only)

The second part (spring): Electrical (78 Hours) covers electrical laws and their applications, direct current and alternating current, series, parallel and series-parallel circuits, voltage and amperage distribution in each case, magnetic fields applications, motor generator and transformers, three-phase circuits: applications, basic connections and protections, blueprint reading, and safety.

Course #	Start	Days	Hours	Location	Cost
621-N	Jan. 20	T & Th	6:00-9:15	Paramus Room T.B.A.	\$867

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.

# HOME INSPECTION

Certificate Program: 10 MODULES

The program is in partnership with the New Jersey Department of Law and Public Safety, Division of Consumer Affairs, State Board of Professional Engineers and Land Surveyors, Home Inspection Advisory Committee and approved by the New Jersey Department of Education. The program is required as a prerequisite for licensing as a New Jersey Home Inspector. **Attendance is mandatory. Maximum Enrollment is Limited to 15 Students. Students must register PRIOR to start date of each module.**

Course locations and nights are subject to change.

## EXTERIOR INSPECTION (15 hrs.)

Course #	Start	Days	Hours	Location	Cost
908-A	Oct. 5	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## FIREPLACE & CHIMNEY INSPECTION (12 hrs.)

Course #	Start	Days	Hours	Location	Cost
905-N	Jan. 18	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## ROOFING INSPECTION (15 hrs.)

Course #	Start	Days	Hours	Location	Cost
901-A	Oct. 21	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## PLUMBING INSPECTION (15 hrs.)

Course #	Start	Days	Hours	Location	Cost
907-N	Feb. 1	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Ray Krenc: raykre@bergen.org

## STRUCTURAL INSPECTION (15 hrs.)

Course #	Start	Days	Hours	Location	Cost
902-A	Nov. 11	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## HEATING & COOLING INSPECTION (27 hrs.)

Course #	Start	Days	Hours	Location	Cost
906-N	Feb. 22	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## INTERIOR INSPECTION (12 hrs.)

Course #	Start	Days	Hours	Location	Cost
909-A	Dec. 2	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## ELECTRICAL INSPECTION (21 hrs.)

Course #	Start	Days	Hours	Location	Cost
903-N	March 24	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Dave Tarallo: davtar@bergen.org

## INSULATION & VENTILATING INSPECTION (12 hrs.)

Course #	Start	Days	Hours	Location	Cost
904-N	Jan. 4	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org

## REPORTING (18 hrs.)

Course #	Start	Days	Hours	Location	Cost
910-N	April 26	T & Th	6:00-9:00	190 Hackensack Ave. Room 120	\$337

Craig Lynch: cralyn@bergen.org



**Book ordering:** Two textbooks must be purchased before classes begin. Please call the ASHI Store, 1-888-544-3699 to order your textbooks. Mechanical Systems & NHIE content and NHIE Structural Systems & Business.

### HOME INSPECTION LICENSING REQUIREMENTS

You must have a high school diploma or equivalent. 10 modules with Reporting, with approved instructors. Minimum of 40 hours of inspection required - minimum of \$30 per hour, payable to the home inspector. For further information and licensing requirements, Home Inspection Advisory Committee - 973-504-6233 • <http://www.njconsumeraffairs.gov/hom/>

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**

# WELDING

Welding courses are open to both apprentices and non-apprentices. The program is geared toward the D1.1 Welding Certification, as sanctioned by the American Welding Society (AWS). Preparation for welding certification includes both classroom training and hands-on work experience. Most students take two to three years to complete the requirements for welding certification.

**All students must purchase their own welding equipment. Speak with the instructor on the first night of class. The information regarding the appropriate welding gear required for the course are listed below.**

## Basic Welding (78 hrs.) 870-A, 870-N

This comprehensive course is designed to accommodate the beginner as well as the person with some experience. Tradespeople in many fields, such as auto body repair, auto mechanics, diesel mechanics, and sheet metal can benefit by acquiring welding skills. Students receive instruction through lecture, demonstration, and hands-on practice. Topics include: S.M.A.W., G.M.A.W., oxy-fuel burning, and plasma cutting.

**ENROLLMENT IS LIMITED TO 15 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
870-A	Oct. 4	M & W	6:00-9:00	Teterboro Room 518	\$1020
870-N	Feb. 16	M & W	6:00-9:00	Teterboro Room 518	\$1020

Frank Polefka: [frapol@bergen.org](mailto:frapol@bergen.org)

## Tig Welding (150 hrs.) 873-A (Full Year Course – Fall Start Only)

Tradespeople in many fields such as auto body repair, auto mechanics, aircraft mechanics, and sheet metal can benefit by acquiring TIG welding skills. Students receive instruction in safe operating practice, welding theory in TIG or GTAW principles, equipment setup, and welding terms and definitions. Hands-on training in carbon steel, stainless steel and aluminum (all positions), and classroom theory in the science of TIG welding. **ENROLLMENT IS LIMITED TO 15 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
873-A	Oct. 5	T & Th	6:00-9:00	Teterboro Room 518	\$1693

Frank Polefka: [frapol@bergen.org](mailto:frapol@bergen.org)

## Welding Certification Preparation (150 hrs.) 872-A (Full Year Course – Fall Start Only)

This course is tailored specifically to fulfill the fast changing needs of today's welding industry. Upon completion, the student will be able to produce welds to Bridge, Highway and AWS D1.1 Structural Codes. Instruction is hands-on (all positions 6010 and 7018). Classroom theory includes a review of materials and the cross matching welding filler material to metals that will be welded. In addition, the program includes blueprint reading and math for welders, as well as metallurgy. Certification testing is done off-site. Instructors reserve the right to determine student readiness for certification testing. Certification testing fees and licensing fees are additional.

**(Prerequisite: Two years' welding experience)**

**ENROLLMENT IS LIMITED TO 15 STUDENTS.**

Course #	Start	Days	Hours	Location	Cost
872-A	Oct. 5	T & Th	6:00-9:00	Teterboro Room 518	\$1693

Frank Polefka: [frapol@bergen.org](mailto:frapol@bergen.org)

## Welding Safety Gear List

### ARC WELDERS:

- Fiber Metal helmet model #906
- Lens shade #10-11-12, plus clear plate
- Welding jacket or cape & apron
- Gauntlet welding gloves
- Safety glasses
- Chipping hammer
- Wire brush
- Pliers

### TIG WELDERS

- Welding jacket
- Fiber metal welding helmet model #909
- Lens shade #10-11-12, plus clear plate
- TIG gloves
- Pliers
- TIG handbook for GTAW by Miller

## WATER AND WASTEWATER OPERATION

### Introduction to Water and Wastewater Operation Part 1 (90 hrs.) 707-A (Fall Semester Only)

This course trains individuals to work in water and sewage treatment plants. Successful completion of Parts 1 and 2 of the course fulfills the educational requirement for the Grade 1 License. Candidates for this course should have an interest in water pollution control, science and mathematics. Topics include: basic math, physics, chemistry and microbiology, hydraulics, and basic operating principles of water and wastewater treatment.

**You must have 1 year work experience to be eligible for the exam.**

Course #	Start	Days	Hours	Location	Cost
707-A	Oct. 4	M & W*	6:00-9:00	Hackensack Room 120	\$792

\*Field trip may be on different nights.

### Introduction to Water and Wastewater Operations Part 2 (90 hrs.) 707-N (Spring Semester Only)

This course trains individuals to work in water and sewage treatment plants. Successful completion of Parts 1 and 2 of the course fulfills the educational requirement for the Grade 1 License. Candidates for this course should have an interest in water pollution control, science and mathematics. Topics include: administrative, water and wastewater sources, analysis, treatment, disinfection, and collection systems.

**(Prerequisite: Course #707-A)**

**You must have 1 year work experience to be eligible for the exam.**

Course #	Start	Days	Hours	Location	Cost
707-N	Feb. 9	M & W*	6:00-9:00	Hackensack Room 120	\$792

\*Field trip may be on different nights.

# LIFESTYLE

A healthy lifestyle helps to improve your health and well-being. Healthy living has a lifelong effect. There are various ways to become and stay healthy including physical activities, weight management, healthy eating, and stress management. We offer a variety of Lifestyle classes. Course locations and nights are subject to change.

## Self Defense (18 hours) 804-S, 804-T (Spring Semester Only)

This Basic Self Defense Class will entail a variety of disciplines. Physical fitness combined with the ability to defend yourself is healthy for the mind as well as the body. Krav Maga for conflict resolution, situational awareness and avoiding trouble. Filipino Martial Arts teaches people to use everyday objects as weapons such as car keys, magazines, etc. Muay Thai is a powerful form of kickboxing involving punches, elbows, knees and kicks. Grappling includes wrestling. Submission Grappler may come to a few sessions to teach his expertise. Brazilian Jujitsu can be used for ground defense. 1st hour - Conditioning 2nd hour - Basic Lesson 3rd hour - Particular concerns of students, continue lesson, self defense Students need to bring: MMA Gloves or Boxing Gloves

Course #	Start	Days	Hours	Location	Cost
804-S	Oct 9	Sat.	9:00-12:00	Hackensack Thearts Rm.	\$200
804-T	Jan. 8	Sat.	9:00-12:00	Hackensack Thearts Rm.	\$200

## Jewelry Making (18 Hours) 805-S, 805-T

Learn the basics of jewelry making. Students will learn how to use the tools of the trade to make their own jewelry. Class begins with creating bracelets and then moves on to learning how to make necklaces with clasps, findings, etc. Students will need to purchase the following items: Small tool kit (pliers) under \$10.00, Beading mat or thick piece of felt, Selection of beads. Findings: including clasps, chain links. Instructor will review everything the first night in case anything else is needed

Course #	Start	Days	Hours	Location	Cost
805-S	Oct. 14	Thurs.	6:00-9:00	Hackensack Room TBD	\$232
805-T	Feb. 24	Thurs.	6:00-9:00	Hackensack Room TBD	\$232



## Basic Crochet (12 Hours) 806-S, 806-T

Students will learn: Basic crochet technology, Creating a chain, Single crochet stitch, Double crochet stitch, Binding off. Students are to bring the following supplies to class: Worsted weight yarn / medium weight (4) Crochet hook size 5.5 Large-eyed blunt needle. Additional items: Scissors Tape measure or ruler.

Course #	Start	Days	Hours	Location	Cost
806-S	Oct.5	Tues.	6:00-9:00	Hackensack Room TBD	\$124
806-T	March 22	Tues.	6:00-9:00	Hackensack Room TBD	\$124

## Basic Knitting (12 Hours) 807-S, 807-T

Students will learn: Basic knit terminology, Casting on, Knit stitch, Purl stitch, Binding off. Students are to bring the following supplies to class: Worsted weight yarn / medium weight (4) Knitting Needles, Size 11 Large-eyed blunt needle Additional Items: Scissors Tape measure or ruler.

Course #	Start	Days	Hours	Location	Cost
807-S	Nov. 2	Tues.	6:00-9:00	Hackensack Room TBD	\$124
807-T	May 3	Tues.	6:00-9:00	Hackensack Room TBD	\$124

## Fashion Design and Sewing (18 hours) 808-S, 808-T

This hands-on, project based class is for a student who has never sewn on a button or turned on a sewing machine to students who are competent sewers and would like to explore fashion design, draping and pattern-making. All students will learn basic hand and machine sewing, fashion history, draping, creating the pattern from draping and how to create garments including a variety of closures. Students will be able to make curtains, bedding, clothing, props, costumes and hundreds of other craft projects of their choosing. Including Project-Runway style challenges for students interested in "creativity on demand", this class will cater to a variety of learning styles and skills in a warm, inclusive atmosphere of creative learning and real-world skill development.

Course #	Start	Days	Hours	Location	Cost
808-S	Oct. 4	M & W	6:00-8:00	Hackensack Room 7	\$309
808-T	April 11	M & W	6:00-8:00	Hackensack Room 7	\$309

Victoria Pero: vicper@bergen.org

**Late Fee:** Students registering for the first time, or current students signing for classes on or after the first day of class will be charged \$50 for late registration.

**Course start dates, location, and nights are subject to change. Please check website for updates or call 201-343-6000, ext. 2289.**



# BERGEN MAKERSPACE

Bergen Makerspace is a community-learning center committed to our three founding principles: education, inspiration and community. Come learn something new in one of our classes or join us in our open lab and create something truly original.

- Introductory and advanced coursework available
- Access to cutting edge equipment and tools
- Shared workspace for you to work on your projects
- Community of makers who share your passion

## Arduino Microcontroller

The Arduino is an open source microcontroller that makes the world of interactive electronics accessible to everyone. No prior experience is necessary and no equipment is required. All you need is an interest in technology and basic computer skills to get started making your own interactive projects.

## 3D Printing

Create three dimensional objects from a digital file using our 3D printers. Whether you are a beginner or an experienced maker we can help you with your 3D printing project.

**BERGEN**  
**makerspace**  
**JOIN US AND BE A MAKER!**

## Laser Cutting

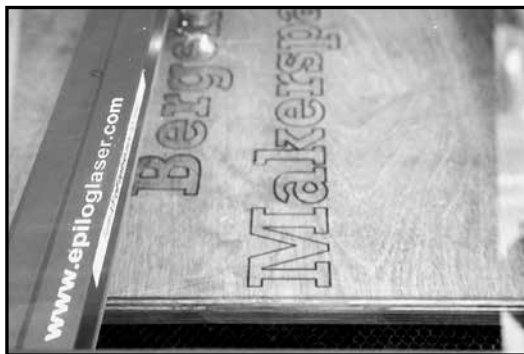
Our Epilog Helix 60 Watt laser cutter will let you cut and engrave a variety of materials including wood and acrylic.

## Free Open Night

Open nights are an opportunity for our community of makers to come together to work on projects in a shared workspace. Come visit us with your project or just stop in to see the space. Admission to our open night events is free. Basic hand tools and electronics equipment are available upon request. Laser cutting and 3D printing are available for an additional cost. Children under the age of 16 must be accompanied by an adult.

Register at: [www.meetup.com/Bergen-Makerspace](http://www.meetup.com/Bergen-Makerspace).

For more information, please visit:  
<http://bergenmakerspace.bergen.org>  
Phone: 201-343-6000 x6253 (MAKE)



# EVENING SCHOOL GENERAL INFORMATION

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## ADMISSION

**General:** Adult programs are open to persons over the age of 16 who can profit from training, are capable of performing the course work, meet prerequisite requirements, and can pay the applicable fees. Course start dates, location, and nights are subject to change.

**High School Students:** High School students 16 years or older may enroll in Adult Education classes if they secure written permission from a parent or guardian and high school guidance counselor prior to registration.

**Older Adults:** Persons 62 years of age or older may attend any Adult Education class at a **50%** tuition discount and pay applicable book, out-of-county or other fees.

**County of Bergen Employees:** Employees of the "County of Bergen" who enroll in part-time classes related to their employment will receive a tuition discount of **25%** and pay applicable book, out-of-county, late, or other fees. The employee must present a letter from the County of Bergen at the time of registration stating that the course is directly related to his/her job. Class placement is subject to space availability provided that tuition-paying students constitute the minimum number of students required to run a course.

**Out-of County Residents:** Out-of County residents will be accepted. An additional fee of **\$50** will be charged at the time of registration for each and all courses.

**Late Registration Fee:** An additional fee of **\$50** will be charged for those who register on or after the start date for each and all courses.

**Paying With Cash at Registration:** If paying with cash, we can only accept exact amounts.

## ON-LINE REGISTRATION

- GO TO <https://adulthood.bergen.org>
- COMPLETE REGISTRATION AND W-9S.

APPRENTICES: MEET WITH THE APPRENTICESHIP COORDINATOR, REGISTER ON-LINE, THEN PAY AFTER APPROVAL.

## REFUND & CANCELLATION POLICY

When the school cancels a course, 100% of course fees will be refunded. The school reserves the right to cancel classes due to insufficient enrollment. Registrants will be notified by phone or email when a class is cancelled. Please provide a cell phone number. A student wishing to withdraw from class must do so in writing. Please address your letter to Administrator, Adult & Continuing Education, BCTS, 190 Hackensack Avenue, Adult Ed. Building, Hackensack, NJ 07601. Failure to attend class does not constitute an official withdrawal from class. **NO refunds will be given to students who have attended more than one full class session.** Refund requests **MUST** be received no later than two weeks after the start date of the class.

## CLASS SIZE, PLACEMENT, AND SCHEDULES

A minimum of 12 students is required to begin most courses. Every attempt will be made to maintain the class schedule and locations as printed. The school, however, reserves the right to make changes. The program and requirements are subject to change without notice at any time, at the discretion of the school. The school reserves the right to cancel, reschedule, or combine classes when enrollment is insufficient or other scheduling problems exist. All students will be scheduled into classes based on availability and discretion of the administration. The school expects that each student read and comply with regulations set in the catalog, other school publications and announcements.

## TEXTBOOKS

The purchase of textbooks and materials may be required for certain classes and is the responsibility of the student. On the first night of class, your instructor will inform you of where you can purchase the necessary text and/or materials. The Adult Education Office will not be purchasing books for direct sale to students.

## SAFETY, ACCIDENTS & SCHOOL INSURANCE

All students must comply with safety regulations. Safety instruction is an integral part of all laboratory and shop classes. According to Board Policy, the individual accepts responsibility for his/her own safety. The Board does not accept liability for accidents that occur due to human error or negligence. For protection and safety, some courses may require students to purchase safety equipment such as glasses, helmets, and gloves. Students in all shops are required to wear OSHA-approved safety glasses. All accidents must be reported immediately to the Adult Education office. The Bergen County Technical Schools' Board of Education does not pay any medical or hospital bills incurred as a result of an accident.

**EMERGENCY SCHOOL CLOSINGS**

In the event of weather or other emergency situations, school closing announcements will be listed on our website at [www.bergen.org](http://www.bergen.org) and made periodically on the following radio stations: WOR – 710 AM, WCBS – 880 AM, and WINS – 1010 AM, and the following television stations: WNYW – Fox 5, WNBC – 4, News 12 New Jersey. Or call Bergen County Technical Schools at 201-343-6000, ext. 2289 for information about evening school classes. Evening classes are **ALWAYS CANCELLED** when the Bergen County Technical Schools are closed. Please do not contact the Police Department for snow and/or emergency closings.

**PUBLIC SAFETY AND SECURITY**

Bergen County Technical Schools Adult & Continuing Education is committed to providing a safe and productive educational environment for its students, employees and guests. We comply with the *Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act* and the *Violence Against Women Reauthorization Act of 2013 (VAWA)*, which includes amendments to the *Clery Act*. Important safety and security information as well as crime statistics are available on our website at: <https://bcts.bergen.org/index.php/public-safety-and-security>.

We ask that you please take the time to review this important information included in our Annual Security Report. You may also request a printed copy of this information by contacting the Adult & Continuing Education office at: 190 Hackensack Avenue, Hackensack, NJ 07601 or by calling (201) 343-6000 extension 2288 or 2289.

**CONDUCT**

**Smoking is prohibited** in all buildings and on all grounds of the Bergen County Technical Schools. The use of alcohol or drugs is strictly prohibited on school property. Violators lose their rights to training. The Bergen County Police will be notified immediately. Proper conduct is required of adult students at all times. The principal reserves the right to dismiss any student who does not comply with school rules and regulations.

**PARKING**

Parking in a designated Fire Lane or other prohibited areas is strictly prohibited. Violators may be ticketed by the Bergen County Police. Please lock your car – the District is not responsible for theft or damage to your vehicle on school property.

190/200 Hackensack Avenue campus: Parking is not available to students in the upper South parking lot, which is reserved for faculty. **Students must park in the lower lot.**

*It is the policy of the Bergen County Technical Schools not to discriminate in its educational programs, activities, employment practices or admission policies and practices on the basis of race, color, national origin, sex, or handicap. Lack of English language will not be a deterrent to admission at the Bergen County Technical Schools.*

# LICENSING PHONE NUMBERS & WEBSITES

**PLUMBING LICENSING REQUIREMENTS**

STATE BD. OF EXAMINERS OF MASTER PLUMBERS: 973-504-6420  
<http://www.njconsumeraffairs.gov/plu/>

**ELECTRICAL LICENSING REQUIREMENTS**

STATE BD. OF EXAMINERS OF ELECTRICAL CONTRACTORS: 973-504-6410  
<http://www.njconsumeraffairs.gov/elec/>

**HOME INSPECTION LICENSING REQUIREMENTS**

HOME INSPECTION ADVISORY COMMITTEE: 973-504-6233  
<http://www.njconsumeraffairs.gov/hom/>

**BOILER LICENSING REQUIREMENTS**

BUREAU OF BOILER & PRESSURE VESSEL COMPLIANCE: 609-292-2345

**HVAC/R LICENSING REQUIREMENTS**

STATE BD. OF EXAMINERS OF HEATING, VENTILATING, AIR CONDITIONING & REFRIGERATION (HVAC/R) CONTRACTORS: 973-504-6250  
<http://www.njconsumeraffairs.gov/hvacr/>

# FULL-TIME DAY PROGRAM

## SHORT TERM TRAINING—HIGH WAGE CAREERS

The Full-Time Day Program offers the latest specialized, professional training for high-wage, high-demand occupations. Whether you are looking to upgrade your present skills, change your career, or are just starting out, our highly-qualified, industry-certified instructors can provide you with a practical, hands-on approach to training in fields where skilled employees are needed. For a fraction of the cost of a private training institution, the Full-Time Day Program offers career counseling, job placement assistance, and access to state-of-the-art equipment to enable you to master marketable job skills. Financial aid is available for those who qualify (subject to federal regulations). The Bergen County Technical School District's reputation and connections with local industry enhance our students' opportunities for excellent job placement.

### Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician

HVAC/R prepares students to install, maintain and repair equipment ranging from room air conditioners through central split systems to large complex food or drug storage refrigeration systems. Topics include: residential, commercial, institutional and industrial HVAC/R systems. Special skills will include soldering, brazing and piping, use of test equipment, hand and power tools; installation and servicing of electrical, refrigeration, comfort cooling, solar thermal and photovoltaic (PV) equipment. Fundamentals include layout and functional design of components including motors, controls, switches, gauges, wiring, harnesses, valves, pumps, coils, piping, condensers, compressors, and defrosting. Student projects will consist of hands-on installation of heating and cooling systems (including central and solar energy systems) before graduation. Students will have opportunities to sit for industry-based competency (HVAC Excellence/Employment Ready) and EPA-approved universal certification exams.

**Length: 1053 Hours (approximately 10 months)\*\***

**Tuition: \$13,005.00\***

\*Cost of Industry Exams, Certifications, books, appropriate clothing, personal tools and supplies are an additional expense to the student.

\*Federal aid and government grants available to those who qualify.

\*\*Program length does not include holidays, school closings, etc.



### Business Administration and Management, General

The objective of our Business Administration and Management (BAM), General program will prepare students for a career in administrative professional management. The program is designed to expand students' existing knowledge of Microsoft Office, QuickBooks and Google Fundamentals. Our exciting and interactive Introduction to Cybersecurity allows students to obtain the knowledge and skills necessary to identify and prevent security risks. Students will also learn basic computing system skills. Upon completion of each Module students will sit for their certification exams proctored in house by our business instructor. Students will also receive an OPAC (Office Proficiency Assessment & Certification) certificate.

The modular curriculum design provides consistency, interactive activity, critical thinking skills and practical application of the material covered. The successful completion of the 3 modules: (1) Career Development (2) Computer Applications and Computer Safety, and (3) QuickBooks and Internship (WBA) support access to a wide range of gainful employment opportunities.

In addition to the teacher-directed, web-based instruction, students will take part in the Work Based Activity (WBA) internship program up to four days a week. This ideal opportunity has the potential to seamlessly transition students into full-time career placement. The course is offered as a full-time day program and corresponds with the schedule of most traditional school calendars.

**Length: 840 hours (approximately 9 months)\*\***

**Tuition: \$8,700.00\*.**

\*Cost of Certifications are included

\*Cost of textbooks are not included.

\*Federal aid and government grants available to those who qualify.

\*\*Program length does not include holidays, school closings, etc.



# FULL-TIME DAY PROGRAM

## SHORT TERM TRAINING—HIGH WAGE CAREERS

### Electrician

Take this first step towards a career in the electrical trades and get a head start in preparing for an Electrical Contracting License. Subjects covered include AC/DC theory, motors and motor controls, metering and test equipment, telecommunications, fire alarms and security systems, wiring materials and techniques, and conduit bending. Students also learn about hand and power tools, safety, blueprint reading and estimating, and construction math. All topics and proficiencies are covered in accordance with the National Electrical Code, and students will learn about new “green” technologies including both solar and wind power systems.

**Length: 1200 Hours (approximately 12 months)\*\***

**Tuition: \$14,450.00\***

\*Cost of Industry Exams, Certifications, books, appropriate clothing, personal tools and supplies are an additional expense to the student.

\*Federal aid and government grants available to those who qualify.

**\*\*Program length does not include holidays, school closings, etc.**

### Plumbing Technology/Plumber

This course is designed to prepare graduates for placement into the plumbing and heating industry, rapidly advancing to highly rewarding careers. Subjects include piping techniques, plumbing code, kitchen and bathroom rough-in, fixture installation, hot water and steam heating systems and various other residential and commercial plumbing applications. Repairs, drain cleaning and trouble-shooting are essential course components. A passing score on the final exam (NOCTI) can give the student up to a one-year Plumbing Apprenticeship credit towards their evening school required training.

**Length: 819 Hours (approximately 8 months)\*\***

**Tuition: \$10,115.00\***

\*Cost of Industry Exams, Certifications, books, appropriate clothing, personal tools and supplies are an additional expense to the student.

\*Federal aid and government grants available to those who qualify.

**\*\*Program length does not include holidays, school closings, etc.**

Students in each of the full-time day programs will receive their theory and hands-on training in separate learning environments specific to their individual program. Classroom spaces contain technology such as SMART or Mimio Boards with sound systems, personal computers, whiteboards, teacher and student stations. Lab/Shop spaces contain instructional equipment such as Lab Volt and Hampden trainers, hand and power tools, as well as all necessary consumable supplies for each trade. In addition, students and faculty have access to our computer lab with printers located in our main building. Fax and phone service is also provided to students for the use of school business such as preparing resumes, scheduling interviews, etc. All full-day programs are located on our Hackensack Campus.

## FULL-TIME DAY PROGRAM GENERAL INFORMATION

### Location:

Training location is at 190 Hackensack Avenue in Hackensack. Transportation is the responsibility of the student. Admissions Counselor - Anthony Mongilia, 201-343-6000, ext. 2047, [antmon@bergen.org](mailto:antmon@bergen.org)

### Schedule:

**Business Administration and Management, General, Electrical Technology, Plumbing & Heating, and HVAC/R Classes:**

Fall/Winter/Spring - Monday through Friday from 8:00 AM to 3:00 PM

Summer - Monday through Thursday from 8:00 AM to 3:00 PM

### Tuition:

Full-time Adult Day program tuition is billable at \$1,445 per month. **HVAC payments will be payable over 9 months, Electrician payable over 10 months, and Plumbing payable over 7 months.** Textbooks and costs associated with certification testing, state licensing, personal tools and appropriate clothing are not included in most courses. Self-paying, non-agency sponsored students may qualify for a 10% tuition reduction when paid in full by first week of class.

### Financial Aid:

Grants may be available from the Department of Education and the Department of Labor, with some covering most, if not all of the tuition for qualified students. In addition, the IRS offers the Hope Scholarship tax credit. If a balance remains, then students may apply for loans and/or payment plans.

## FULL-TIME DAY PROGRAM INSTRUCTOR CREDENTIALS

We are very proud to say our instructors have years of practical experience as well as professional training and certifications in a wide range of fields. These experiences and trainings are brought to life each day and shared with our students through both academic and hands-on learning activities. Listed below are a some of the credentials our faculty hold.

### Robert Aleman (Plumbing & Heating)

- OSHA 10 General Industry Course Training Certification # 12-700728406, 2013
- State of New Jersey Board of Education Teacher Certification of Plumbing and Pipefitting # 804596, 2011
- Ramapo College Alternate Route Teacher Course for Certification, 2011
- State of New Jersey Boiler Operator License B-139716, 2003
- Passaic County Technical and Vocational High School four year Plumbing program Diploma, 1977

### Daniel DeSena (Electrical Technology)

- New Jersey Teacher Certification, Teacher of Technical Occupations: Electrical Technology, 2004
- Licensed Electrical Contractor, New Jersey State Board of Electrical Contractors, 1996
- Credits earned in Business Management/Aviation, Private Pilot's License 1983, Daniel Webster College, Nashua, NH
- Credits earned in Aviation/General Studies, 1980, Florida Institute of Technology, Melbourne FL

### Gretchen Foote (Business Administration and Management, General)

- BA, Bachelor of Arts, Major in School of Education, Saint Peter's University
- BA, Bachelor of Arts, Major in School of Business Administration with concentration in Criminal Justice. Saint Peter's University
- NJ Certified Teacher -Elementary Education

### Awa Uma (HVAC/R)

- BS, Industrial Technology, Minor in Technology, 1983, Elizabeth City State University, North Carolina
- M.Ed., Career and Technology Education, 1986, Bowling Green State University, Ohio
- EPA Refrigeration Handling Certification, Ferris State University, Michigan
- HVAC Contractor's License – Ohio Construction Industry Licensing Board (OCILB)

## FULL-TIME DAY ADMISSIONS PROCESS CHECKLIST\*

- Attend an Information Session.** Information sessions are scheduled on Wednesdays at 1:00pm, and include a school/program overview, tour of the shops/classrooms and an opportunity to meet instructors.  
Note: Be sure to complete the sign-in sheet, with all necessary information
- Submit a Completed Application.** Complete the school's application and return it to the Admissions Office (Anthony Mongilia), with a non-refundable tuition deposit of \$100 made by Check or Money Order payable to *Bergen County Technical Schools, Adult Day Division*. Cash, Visa and MasterCard are also accepted. (If agency sponsored, the \$100 deposit does not apply.)
- Submit Documentation.** The following documentation is required:
  - ☐ High School, GED/HSE or College Diploma
  - ☐ Mantoux (TB) results from **doctor or local health department****May be required:**
  - ☐ TABE testing results
  - ☐ Transcripts/Test Scores
  - ☐ New Jersey General Education Statewide High School Assessment results
  - ☐ One-Stop Career Center (white) ID Card
- Schedule an Appointment with the Financial Aid Office.** A meeting with the district's Financial Aid Officer is necessary for all students enrolling in a program over 600 hours.  
**Prior to meeting with Financial Aid Office:**
  - Prepare Document.** To complete the FAFSA form, obtain the form labeled "Before Beginning a FAFSA - Documents Needed" from the admissions office.
  - Complete FAFSA Worksheet.** FAFSA worksheet can be obtained online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) or upon enrolling at BCTS.

\* If you are enrolling in school through a Government Agency, approval for school funding is required from the Agency's Counselor.

**[www.bergen.org](http://www.bergen.org) or call 201.343.6000**

**Anthony Mongilia, Admissions Counselor ext. 2047, Tarla Broadnax, general information ext. 2288**



# FREE ENGLISH AS A SECOND LANGUAGE (ESL) PROGRAMS

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ESL Programs are offered to participants who wish to improve their English language and citizenship skills in order to enter or retain employment, or to enter post-secondary education or training. Classes meet online or in-person.

# FREE HIGH SCHOOL EQUIVALENCY HSE (FORMERLY GED) TEST PREPARATION

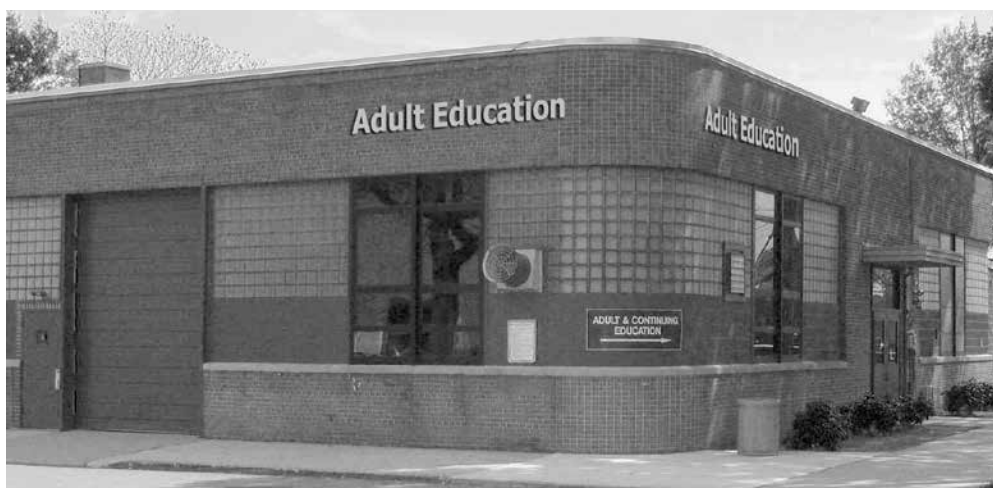
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HSE test preparation classes are offered to participants who wish to earn a high school equivalency diploma to enter employment or retain employment, or to enter a post-secondary or training program of study. Classes meet online or in-person

**For FREE ESL or HSE program information, contact:**

<b>Office Location:</b>	190 Hackensack Avenue Adult Education Building, Hackensack, NJ 07601
<b>Office Hours:</b>	8:00 am - 4:00 pm, Monday - Friday
<b>Telephone:</b>	201-343-6000 ext. 4639

The New Jersey Department of Labor funds part time classes for adults to improve their English language skills or obtain an HSE diploma. Classes are free to participants and times and locations vary as classes are held throughout the county and online.



# High School Equivalency Testing

## HOW TO REGISTER FOR THE HSE TEST:

Call or make an appointment to register at our Testing Center which is located at 190 Hackensack Ave., Hackensack, NJ, Room 119. (until further notice).

Registration is from 10:00 am to 2:30 pm every day (Summer hours we are closed on Fridays).

## WHAT YOU WILL NEED:

- PHOTO ID (DRIVER'S LICENSE, PASSPORT, OTHER GOV'T ISSUED ID)
- PROOF OF NJ RESIDENCY
- SOCIAL SECURITY CARD (IF YOU HAVE IT)
- \$114.00 MONEY ORDER FOR INITIAL TEST



## 16 OR 17 YEAR OLDS:

- HIGH SCHOOL NON-ENROLLMENT FORM, SIGNED, WITH SEAL
- PARENT MUST ACCOMPANY YOU WITH THEIR ID (MUST MATCH SAME LAST NAME (OR SHOW BIRTH CERTIFICATE)
- IF GUARDIAN, SHOW COURT PAPERS

Office Location: 190 Hackensack Avenue,  
Hackensack, NJ 07601, Room 119 (until further notice)

Office Hours: Monday through Friday, 10:00 am – 2:30 pm

Registration by appointment only - call 201-343-6000 ext. 2308

Fee for test - \$114.00 money order

TESTS ARE ON COMPUTER  
WHEELCHAIR ACCESSIBLE  
ENGLISH AND SPANISH TESTS AVAILABLE

# ADMINISTRATION

### Board of Education

William Connolly, *President*  
Jason Kim, *Vice President*  
Louis DeLisio, *Interim Executive County Superintendent*  
Ivonne Enrique  
Lawrence Meyerson

### Administration

Howard Lerner, Ed.D., *Superintendent*  
John Susino, *Business Administrator / Board Secretary*  
Andrea Sheridan, *Assistant Superintendent*  
Richard Panucci, *Assistant Superintendent for Curriculum and Instruction*

### Building Administration

Victor Lynch, *Principal*  
Dr. James M. Karpowich, *Lead Teacher, Apprenticeship Coordinator*

### Bergen County Executive

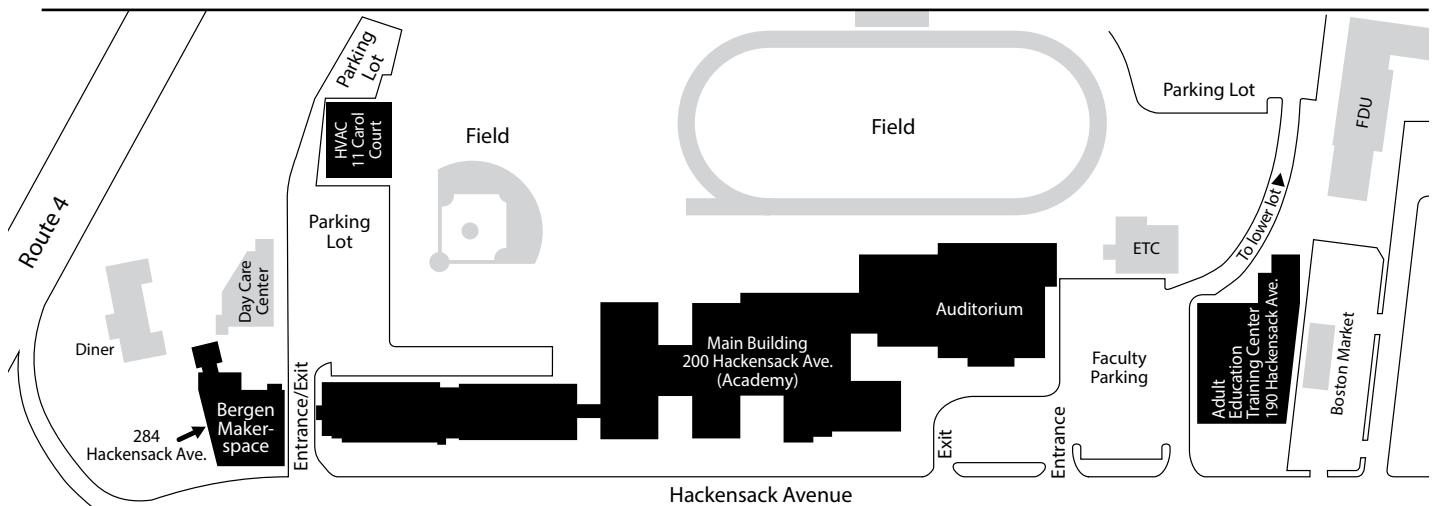
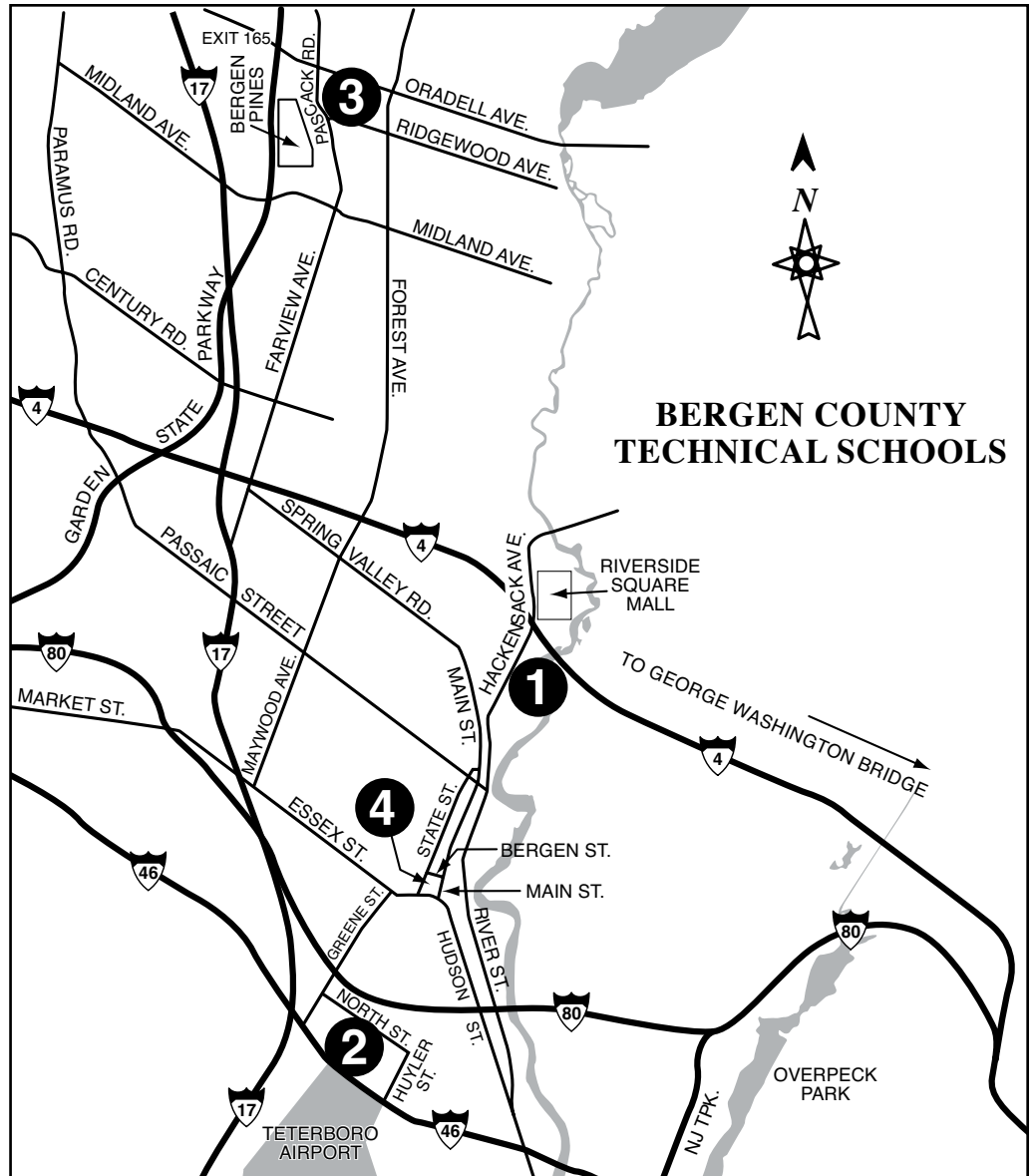
James J. Tedesco III

### Bergen County Commissioners

Steven A. Tanelli, *Chairman*  
Tracy Silna Zur, *Vice Chairwoman*  
Joan M. Voss, Ed.D., *Chair Pro Tempore*  
Mary J. Amoroso  
Ramon M. Hache, Sr.  
Germaine M. Ortiz  
Thomas J. Sullivan Jr.

## CAMPUS LOCATIONS/ TRAVEL DIRECTIONS

- 1 Hackensack Campus**  
(190 Hackensack Avenue,  
and 11 Carol Court,  
Hackensack): Route 4 East  
to Hackensack Avenue South.  
The campus is located  
directly south of Route 4  
on Hackensack Avenue.  
**11 Carol Court** is on the north  
side of the main building  
(the side closer to Route 4)
- 2 Teterboro Campus**  
(504 Route 46 West &  
Central Avenue, Teterboro):  
Route 46 toward Teterboro  
Airport. The campus is located  
directly across the airport  
on Route 46 West.
- 3 Paramus Campus**  
(E. 285 Pascack Road,  
Paramus): Ridgewood Avenue  
to Pascack Road. The campus  
is located on Pascack Road,  
directly across from Bergen  
New Bridge Medical Center.
- 4 Bergen Job Center**  
(60 State Street):  
Route 80 East to exit 66.  
Turn left at the end of exit ramp.  
At light, turn left onto Hudson  
Street. Proceed to fork  
at court house - Main Street.  
Stay on Main to Bergen Street.  
Make left on Bergen Street.



## HACKENSACK CAMPUS



## BERGEN COUNTY TECHNICAL SCHOOLS

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- Apprenticeship Training
- Advanced Manufacturing
- Carpentry
- Collision Repair
- Computer Training
- Electrical Technology
- Firemen-Stationary Engineering (Black Seal/Blue Seal)
- Home Inspection Program
- HVAC
- Makerspace
- Plumbing
- Programmable Controls
- Water & Wastewater Operations
- Welding, And More...

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- Full-Time Day Program
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- English for Employment and Training (x4639)

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2047 (Admissions Counselor),  
4639 (ESL/HSE [GED] Classes),  
4603 (Apprenticeship Coordinator)**

**<https://adulthood.bergen.org> (Registration) • [www.bergen.org](http://www.bergen.org)**