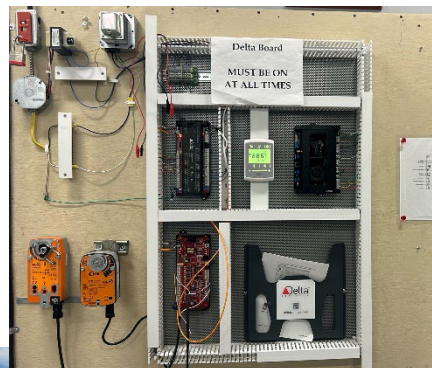


SPRING SCHEDULE



NAPE
EDUCATIONAL FOUNDATION
HANDS-ON EDUCATION
FOR BUILDING ENGINEERS

2024



Administrative Office:
5520 Cherokee Avenue, Suite 250 • Alexandria, Virginia 22312
Tel: 703.845.7055 • Fax: 703.845.7059

www.napeef.org

Electrical

PRINCIPLES OF ELECTRICITY – 36 HOURS		
Books-\$202.00 • Tax \$12.12 • Tuition: \$788.88 • Total: \$1,003.00		
No prerequisites required. <i>This is a beginner's course which starts with the basic elements of circuitry, safety rules, understanding of terminology and simple mathematical calculations. It prepares the student for all other aspects of engineering. This course is designed to allow the student to progress directly to our Electrical Systems, Code and Theory course. This is not a wiring class. This course is required for all NAPEEF electrical classes, and Air Conditioning II. Basic English and math skills required.</i>		
Book: Delmar's Textbook of Electricity 7 th Edition		
PRINCIPLES OF ELECTRICITY / S-200-AL		
12 Sessions Monday, 1/22/2024 to 4/15/2024	5:30 pm to 8:30 pm (on-going)	Alexandria, VA Location Eduardo Ayala, Instructor
PRINCIPLES OF ELECTRICITY / S-202-AL		
12 Sessions Monday, 1/29/2024 to 4/22/2024	5:30 pm to 8:30 pm (on-going)	Alexandria, VA Location Sean McRunnel, Instructor
PRINCIPLES OF ELECTRICITY / S-201-AL		
12 Sessions Wednesday, 2/14/2024 to 5/1/2024	5:00 pm to 8:00 pm (on-going)	Alexandria, VA Location John Hughes, Instructor
PRINCIPLES OF ELECTRICITY / S-203-AL		
12 Sessions Wednesday, 5/8/2024 to 7/24/2024	5:00 pm to 8:00 pm (on-going)	Alexandria, VA Location John Hughes, Instructor
SCHEMATICS – 30 HOURS		
Books-\$147.51 • Tax-\$8.85 • Tuition: \$797.64 • Total \$954.00		
Completion of Principles of Electricity course is required. <i>A basic understanding of A/C and electrical components and how they apply to HVAC is necessary before taking this course. Curriculum includes wiring, diagrams, symbols, legends, walk thru and troubleshooting of ladder wiring diagrams See www.napeef.org for current course schedule for times, dates and locations for control circuits. No pretest is required for this course. Basic English skills required.</i>		
Book: Electric Motors Controls 5 th Edition		
SCHEMATICS / S-230-AL		
10 Sessions Tuesday, 12/5/2023 to 2/6/2024	5:30 pm to 8:30 pm	Alexandria, VA Location Eduardo Ayala, Instructor
SCHEMATICS / S-231-AL		
10 Sessions Thursday, 2/22/2024 to 4/25/2024	5:30 pm to 8:30 pm	Alexandria, VA Location Eduardo Ayala, Instructor

ELECTRICAL SYSTEMS, CODE & THEORY – 60 HOURS

Books-\$344.61 • Tax-\$20.68 • Tuition: \$1,236.71 • Total \$1,602.00

Completion of the Principles of Electricity course is required, and intermediate English skills are necessary. This intermediate-level course will focus on electrical principles and components, inductance and capacitance, motors and motor starters, measuring instruments and their use; single and three phase fundamentals, various in-class exercises; alternating current characteristics; safety; electrical formulas and their applications. This course will explore and clarify updated code information. Please note: This is not a wiring class. As time permits there may be some hands-on exercises.

Book: Electric Motors Controls 5th Edition, National Electrical Code (NEC) 2020, NEC Tabs 2020, NEC Reference Cards 2020, Ugly's Book, NFPA 70E Standard for Electrical Safety 2023

ELECTRICAL SYSTEMS, CODE & THEORY / S-220-AL

16 Sessions

5:30 pm to 9:00 pm

Alexandria, VA Location

Wednesday, 1/17/2024 to 5/1/2024

Sean McRunnel, Instructor

ELECTRIC MOTORS – 30 HOURS

Books-\$103.95 • Tax-\$6.24 • Tuition: \$902.81 • Total \$1,013.00

Completion of the Principles of Electricity course is required. *This course will focus on single phase and three phase A/C motors. How motors start and run, electromagnetism, and practical applications of induction type, split phase and capacitor type motors will be covered. Basic English and Math skills required.*

Book: Motors 2nd Edition

ELECTRIC MOTORS / S-210-AL

10 Sessions

5:30 pm to 8:30 pm

Alexandria, VA Location

Thursday, 2/20/2024 to 4/30/2024

Eduardo Ayala, Instructor

Air Conditioning

AIR CONDITIONING I* – 60 HOURS

Books-\$183.02 • Tax-\$10.98 • Tuition: \$1,333.00 • Total \$1,527.00

This entry-level course concentrates on basic refrigeration circuits up to 20-ton package and split systems - air and water-cooled. The goal is for students to develop a basic understanding of the refrigeration cycle and its components. Students are required to attend one weekend lab session. Intermediate English skills are required.

Book: Refrigeration & Air Conditioning Technology 9th Edition

AIR CONDITIONING - I / S-241-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Thursday, 1/18/2024 to 5/2/2024

David Umana, Instructor

AIR CONDITIONING - I / S-240-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Tuesday, 2/20/2024 to 6/4/2024

Jason Trotman, Instructor

AIR CONDITIONING – I / S-243-GR

16 Sessions

5:00 pm to 8:30 pm

Greenbelt, MD location

Wednesday, 2/29/2024 to 6/12/2024

Francis Ayensu, Instructor

AIR CONDITIONING II* – 60 HOURS

Books-\$183.02 • Tax-\$10.98 • Tuition: \$1,427.00 • Total \$1,621.00

Completion of Principles of Electricity and Air Conditioning I - Introduction course is required. *This course covers step-by-step methods of analyzing why a system will not run or is inefficient. Procedures are taught in the service person's language. Electrical and mechanical problems and solutions are covered. Students may be advised to transfer to a lower-level course based on a pretest. The textbook is the same as A/C I. Students are required to attend two (2) lab sessions on two weekends. Intermediate English skills required.*

Book: Refrigeration & Air Conditioning Technology 9th Edition

AIR CONDITIONING II / S-252-GR

16 Sessions

5:00 pm to 8:30 pm

Greenbelt, MD Location

Tuesday, 2/27/2024 to 6/11/2024

Francis Ayensu, Instructor

AIR CONDITIONING II / S-250-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Thursday, 1/25/2024 to 5/9/2024

Jason Trotman, Instructor

AIR CONDITIONING II / S-251-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Monday, 3/25/2024 to 7/15/2024

David Umana, Instructor

*** AC Labs — All AC I and AC II Students are required to attend lab sessions in order to pass the courses and receive their certificates. Please note: most labs are held on designated Saturdays during the day.**

HEAT PUMPS – 60 HOURS

Books-\$175.00 • Tax-\$10.50 • Tuition: \$1,332.00 • Total \$1,518.00

Completion of Principles of Electricity, Air Conditioning I and Air Conditioning II classes is required. *This course specifically covers heat pump operation cycle and efficiency, compressors and motor controls, refrigerant controls, reversing valves, air and water coils, defrosting cycles, supplemental heat, service and troubleshooting and wiring diagrams. Students may be advised to transfer to a lower-level course based on a pretest. Advanced English skills required.*

Book: Heat Pumps 2nd Edition

HEAT PUMPS / S-270-AL

16 Sessions

4:45 pm to 8:15 pm

Alexandria, VA Location

Tuesday, 1/16/2024 to 4/30/2024

Julio Herrera, Instructor

AIR CONDITIONING III – 60 HOURS

Books-\$183.02 • Tax-10.98 • Tuition: \$1,280.00 • Total \$1,474.00

Completion of Principles of Electricity, Air Conditioning I, II, and Heat Pump courses is required. *This course will focus on large commercial systems including, but not limited to: The study of Psychometrics, Air and Water balancing, Heat load calculations, Chiller Systems, Chiller simulation hands-on experience, Understanding VAV operation, EMS electrical savings, Review of plant operations, Pumps and Cooling towers, Heat Pumps and Troubleshooting Gas and Oil Rooftop units. Students may be advised to transfer to a lower-level course based on a pretest.*

Book: Refrigeration & Air Conditioning Technology 9th Edition

AIR CONDITIONING III / S-260-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Friday, 1/19/2024 to 5/31/2024

Benjamin Cook, Instructor

REFRIGERATION – 60 HOURS

Books-\$220.06 • Tax-\$13.20 • Tuition: \$1,279.74 • Total \$1,513.00

Completion of Principles of Electricity, Air Conditioning I and Air Conditioning II courses is required. *This course will concentrate on commercial refrigeration and ice machines. The course will cover installation and service of walk-ins, reach-ins, and ice machines as used primarily in the food service industry and in retail stores. Intermediate English skills required.*

Book: Commercial Refrigeration for Air Conditioning Wirz 3rd Edition

REFRIGERATION / S-280-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Tuesday, 1/16/2024 to 4/30/2024

Jose Luis Villalobos, Instructor

Controls

CONTROLS I – 60 HOURS

Books-\$220.00 • Tax-\$13.20 • Tuition: \$1,366.80 • Total \$1,600.00

Prerequisites are Principles of Electricity and Air Conditioning I. This 60-hour course will cover basic building operations and HVAC systems, as they relate to control systems and components. Specific subjects include on-off control, switching, control methods, control strategies and control components. Control systems terminology will also be covered, along with input and output measuring methods, psychometrics and control logic. Basic English and Math skills required.

Book: HVAC Control System Textbook 4th Edition, HVAC Control Systems Workbook 4th Edition, Green Building Glossary

CONTROLS I – BASIC / S-251-AL

16 Sessions

5:00 pm to 8:30 pm

Alexandria, VA Location

Thursday, 3/7/2024 to 6/20/2024

Ben Cook, Instructor

Boilers

LOW PRESSURE BOILERS – 60 HOURS

Books-\$113.00 • Tax-\$6.78 • Tuition: \$1,138.22 • Total \$1,258.00

This is a beginner's class for those who wish to get the basic knowledge of "steam and hot water heating systems." This provides the basic information to put you on the road to becoming a licensed engineer. This is not a prep course for the 6th Class license, although it may be useful. Intermediate English skills required. Course Curriculum Covers: Boilers: boiler room safety; boiler fittings; boiler room terminology; feed water accessories; fuel oil systems; combustion accessories; feed water systems; draft systems; water treatment; steam systems and boiler operations.

Book: Low Pressure Boilers 5th Edition

LOW PRESSURE BOILERS / S-312-AL

16 Sessions 5:00 pm to 8:30 pm Alexandria, VA Location
Wednesday, 1/17/2024 to 5/1/2024 Alek Dlacic, Instructor

LOW PRESSURE BOILERS / S-310-AL

19 Sessions (2xW) 5:00 pm to 8:30 pm Alexandria, VA Location
Monday & Thursday, 1/22/2024 to 4/1/2024 Mario Cerritos, Instructor

LOW PRESSURE BOILERS / S-311-AL

16 Sessions 5:00 pm to 8:30 pm Alexandria, VA Location
Tuesday, 1/30/2024 to 5/14/2024 Mario Cerritos, Instructor

LOW PRESSURE BOILERS / S-314-AL

16 Sessions 5:00 pm to 8:30 pm Alexandria, VA Location
Wednesday, 1/31/2024 to 5/15/2024 Mario Cerritos, Instructor

LOW PRESSURE BOILERS / S-314-AL

19 Sessions (2xW) 5:00 pm to 8:00 pm Alexandria, VA Location
Monday & Thursdays, 4/22/2024 to 7/1/2024 Mario Cerritos, Instructor

LOW PRESSURE BOILERS / S-317-GR

19 Sessions (2xW) 5:00 pm to 8:00 pm Greenbelt, MD Location
Monday & Thursday 4/22/2024 to 7/1/2024 Roger Simmons, Instructor

HIGH PRESSURE BOILERS – 60 HOURS

Books-\$242.33 • Tax-\$14.54 • Tuition : \$1,315.13 • Total \$1,572.00

Completion of a Low-Pressure Boiler Course, or Licensure (DC 6; MD 3; NIULPE 3) is required. This is curriculum based on selected study materials for the DC Licensing Exam. Because the DC 3rd class test covers more than just steam, this course is not advertised as a prep course, but it focuses on the exam. Course Curriculum Covers: High pressure boilers; boiler fittings; water treatment; fuels and firing equipment; pumps; steam engines; automatic boiler control; boiler operation/maintenance and duplex pumps.

Book: Boiler Operator's and Inspector Guide Edition, High Pressure Boiler Workbook 6th Edition

HIGH PRESSURE BOILERS / S-321-AL

20 Weeks 5:00 pm to 8:00 pm Alexandria, VA Location
Thursday, 1/18/2024 to 5/30/2024 Tim Tucker, Instructor

HIGH PRESSURE BOILERS / S-320-AL

20 Weeks 5:00 pm to 8:00 pm Alexandria, VA Location
Tuesday, 1/30/2024 to 6/11/2024 William Tucker, Instructor

HIGH PRESSURE BOILERS / S-330-GR

20 Weeks 5:00 pm to 8:00 pm Greenbelt, MD Location
Thursday, 2/29/2024 to 7/18/2024 Alex Colvin, Instructor

Entry Level

PLANT EQUIPMENT & OPERATIONS – 30 HOURS		
Books-\$113.00 • Tax-\$6.78 • Tuition: \$714.22 • Total \$834.00		
No pretest is required for this class. This course teaches the basic operation and maintenance of heating systems, air conditioning systems and auxiliary equipment. This 10-week course will also cover the preventive maintenance aspect of these systems. Course Curriculum Covers: Boiler operation and Air Conditioning systems - daily, monthly, and yearly preventive maintenance. Air handlers, pumps, towers, air compressors and other auxiliary equipment. Other topics include safety issues related to these systems and setting up preventive maintenance schedules for equipment.		
PLANT, EQUIPMENT & OPERATIONS / S-330-GR		
10 Sessions	5:00 pm to 8:00 pm	Greenbelt, MD Location
Tuesday, 1/16/2024 to 3/19/2024		Alex Colvin, Instructor
PLANT, EQUIPMENT & OPERATIONS / S-331-GR		
10 Sessions	5:00 pm to 8:00 pm	Greenbelt, MD Location
Tuesday, 4/2/2024 to 6/4/2024		Alex Colvin, Instructor

READY TO WORK – 60 HOURS		
Tuition Total \$1,000.00		
The National Association of Power Engineers (NAPE) Educational Foundation is pleased to announce its new Ready 2 Work Engineering Kick-Start Program designed to provide you with the training you need to get started in this exciting career as an entry-level building engineer. You'll learn the basics of Career/Outlook and Professionalism, HVAC, Electrical Maintenance, Plumbing, Fire Alarm/Safety and more. A job fair will be included to help you put your training to use after you have successfully completed Ready 2 Work.		
READY TO WORK – Engineering Kick-Start Program / -AL		
20 Sessions	5:00 pm to 8:00 pm	Alexandria, VA Location
TBD,		TBD, Instructor

License and Exam Preparation

VA JOURNEYMAN & MASTER MECHANICAL PREP COURSE – 45 HOURS		
Books-\$301.00 • Tax-\$18.06 • Tuition: \$1,064.94 • Total \$1,384.00		
A review for air conditioning, heating, sheet metal, and plumbing mechanics preparing for VA Journeyman or Master Mechanical License exams. For license information, call (804) 367-8500. Virginia and Maryland licenses are now reciprocal.		
VA Journeyman & Master Mechanical / -AL		
15 Sessions	5:00 pm to 8:00 pm	Alexandria, VA Location
TBD,		TBD, Instructor

LEED GREEN ASSOCIATE PREP COURSE – 16 HOURS

Material -\$150 • Tuition: \$423 • Total \$573.00

The LEED Green Associate (LEED-GA) credential is intended for professionals who want to demonstrate Green Building expertise in non-technical fields of practice. The Green Building Certification Institute (GBCI) has created this credential, which denotes basic knowledge of green design, construction and operations. Applications and fees for the LEED-GA examination are conducted through GBCI. Completion of this seminar is required for the Certified Supervising Engineer (CSE) Certificate.

LEED-GA Exam Preparation / TBD

4 Sessions

1:00 pm to 5:00 pm

Alexandria, VA Location

Monday, 1/22/2024 to 2/12/2024

David Ferrera, Instructor

Management

THE MANAGING ENGINEER – 45 HOURS

Tuition: \$998.00 • Total \$998.00

This course is recommended for individuals who have several years in the field and desire to learn the many aspects of a supervisor's fiduciary duties and responsibilities that they will encounter as a Managing Engineer. This course provides the student with an understanding and introduction to the tools, management skills, objectives, and general knowledge and understanding a supervisor needs to become an effective manager and leader. The course curriculum also covers the following: Business Writing (reports and email communication), Project Management, Organizational Skills, and Crisis Management. The course expands the student's knowledge of Word and Excel. Using Excel, students will create a budget for a building, including equipment and costs. This exercise challenges the students to generate a 5-year budget forecast that differentiates between a general operating budget and a Capitol Project budget. Students will improve their interpersonal skills for internal and external customer service. This course covers the interview process for both the interviewer and the interviewee. The class curriculum closes with a video presentation on a subject selected by the student and presented to their fellow classmates. This tool provides the student with an understanding of the skills needed to conduct meetings, give presentations, and speak in public. English skills in verbal and written communication are a requirement. This course is required to receive the Supervising Engineer Award. Advanced English skills required.

The Managing Engineer / F-122-AL

15 Sessions

4:00 pm to 7:00 pm

Alexandria, VA Location

TBD,

TBD, Instructor

Miscellaneous

BLUEPRINT READING – 30 HOURS

Books-\$105.00 • Tax-\$6.30 • Tuition: \$856.70 • Total \$968.00

Blueprint Reading / S-340-AL

10 Sessions

5:30 pm to 8:30 pm

Alexandria, VA Location

TBD,

TBD, Instructor

Seminars

CFC SEMINAR & TEST		
Tuition: \$550.00 • Total \$550.00 (Test Included)		
In this EPA approved program, topics will include CFC containment methods, legal requirements, existing and new refrigerants, and basic understanding of the refrigeration cycle and system components. Format: Seminar for four sessions. Exam is on the last session.		
CFC Seminar & Test – 12 HOURS / S-290-AL		
4 Sessions Thursday, 1/25/2024 to 2/21/2024	5:00 pm to 8:00 pm	Alexandria, VA Location Ben Cook, Instructor
CFC Seminar & Test – 12 HOURS / S-291-AL		
4 Sessions Tuesday, 5/14/2024 to 6/4/2024	5:00 pm to 8:00 pm	Alexandria, VA Location Luis Villalobos, Instructor
CFC Seminar & Test – 12 HOURS / S-293-AL		
4 Sessions Thursday, 5/16/2024 to 6/6/2023	5:00 pm to 8:00 pm	Alexandria, VA Location Jason Trotman, Instructor
CFC Seminar & Test – 12 HOURS / S-290-AL		
4 Sessions TBD	5:00 pm to 8:00 pm	Alexandria, VA Location TBD, Instructor
Dates for CFC Testing & Retesting in Alexandria, VA on FRIDAYS at 2 pm only . Test dates: 3/23/24; 7/19/24 . Please call for information 703-845-7055. <u>No PO's accepted for payment</u> . Registration closes Thursday prior to testing. 1 st test \$90, Retest \$70 (if last test taken within three months)		

R-410A and NEW REFRIGERANTS SEMINAR		
Tuition: \$260 • Total \$260 (Test Included)		
Prerequisites: Air Conditioning I and CFC Universal. <i>This seminar will cover characteristics (pressures, etc.) of 410-A; evacuation requirements; servicing; installation; disposal; safety; cylinders, etc. The seminar is an exam preparation for NAPE's 410-A Certification test, which is administered at the end of the seminar. R-410 A Certification is required for the GCAR Certificate.</i>		
R410-A – 6 Hours / F-132-AL		
1 Session Saturday, TBD		Alexandria, VA Location TBD , Instructor
<u>Others:</u> NIULPE TESTS: Mario Cerritos 703-629-1707		

Important Dates for 2024

Friday, May 24th, 2024: Spring Deadline for submitting applications for
General Certificates

Electrical Proficiency

Air Conditioning & Refrigeration

Engineering

Supervising Engineer

THERE WILL BE NO CLASSES ON:

Martin Luther King Jr. Day, Monday, Jan 15

President's Day, Monday, Feb 19

Memorial Day, Monday, May 27

Juneteenth, Wednesday, June 19

Independence Day, Thursday, Jul 4

Labor Day, Monday, Sept 2

Columbus Day, Monday, Oct 14

Veterans Day, Monday, Nov 11

Thanksgiving Day, Thursday, Nov 28

Christmas Day, Wednesday, Dec 25

New Year's Day, Wednesday, Jan 1, 2025

Classes will be held on all other days.

CLASS LOCATIONS: VA & MD

Alexandria, VA (AL): Classes are held at NAPEEF's 5520 Training Center, LLC facility at: 5520 Cherokee Avenue, Alexandria, VA, 22312, as well as in:

Greenbelt, MD (GR): Hanover Office Park, located at 7213 Hanover Parkway, Greenbelt, Maryland 20770