

NAPE – Air Conditioning I – In Person Syllabus

Description

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.

Time

Monday, August 19, 2024 to Monday, December 9, 2024

This course will last for 16 weeks. Class is on the same night Monday each week.

Course Cost

Tuition: \$1,400.00

Textbook(s): \$240.00

Tax: \$15.00

Total: \$1,655.00

Location

7213 Hanover Parkway
Greenbelt, MD 20770

NAPE – Air Conditioning II – Syllabus

AIR CONDITIONING II* – 60 HOURS		
Books-\$240.00 • Tax-\$15.00 • Tuition: \$1,505.00 • Total \$1,760.00		
Book: Refrigeration & Air Conditioning Technology 9 th Edition		
<i>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.</i>		
AIR CONDITIONING II / F-253-GR		
16 Sessions Wednesday, 8/28/2024 to 12/18/2024	5:00 pm to 8:30 pm	Greenbelt, MD Location Francis Ayensu, Instructor
AIR CONDITIONING II / F-255-AL		
16 Sessions Thursday, 10/3/2024 to 1/30/2024	5:00 pm to 8:30 pm	Alexandria, VA Location David Umana, Instructor
AIR CONDITIONING II / F-254-AL		
16 Sessions Monday, 9/9/2024 to 12/24/2024	5:00 pm to 8:30 pm	Alexandria, VA Location 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.		

NAPE – Air Conditioning III – Syllabus

AIR CONDITIONING III – 60 HOURS		
Books-\$240.00 • Tax-15.00 • Tuition: \$1,345.00 • Total \$1,600.00		
Book: Refrigeration & Air Conditioning Technology 9 th Edition		
<i>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.</i>		
AIR CONDITIONING III / F--AL		
16 Sessions Friday, 8/23/2024 to 12/13/2024	5:00 pm to 8:30 pm	Alexandria, VA Location Benjamin Cook, Instructor

NAPE – Electric Motors – Syllabus

ELECTRIC MOTORS – 30 HOURS		
Books-\$140.00 • Tax-\$10.00 • Tuition: \$951.00 • <u>Total \$1,101.00</u>		
Book: Motors 2 nd Edition		
Completion of the Principles of Electricity course is required. <i>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.</i>		
ELECTRIC MOTORS / F-212-AL		
10 Sessions	5:30 pm to 8:30 pm	Alexandria, VA Location
Wednesday, 9/11/2024 to 11/13/2024		Eduardo Ayala, Instructor

NAPE – Heat Pumps – Syllabus

HEAT PUMPS – 60 HOURS		
Books-\$228.00 • Tax-\$14.00 • Tuition: \$1,400.00 • <u>Total \$1,642.00</u>		
Book: Heat Pumps 2 nd Edition		
Completion of Principles of Electricity, Air Conditioning I and Air Conditioning II classes is required. <i>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.</i>		
HEAT PUMPS / F- -AL		
16 Sessions	5:00 pm to 8:00 pm	Alexandria, VA Location
Wednesday, 8/28/2024 to 12/18/2024		Jose Luis Villalobos, Instructor

NAPE – Plant Equipment & Operations – Syllabus

PLANT EQUIPMENT & OPERATIONS – 30 HOURS		
Books-\$147.00 • Tax-\$9.00 • Tuition: \$754.00 • <u>Total \$910.00</u>		
Book: Low Pressure Boilers 5 th Edition		
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
Monday, 11/25/2024 to 2/3/2025		Davon Maye, Instructor

NAPE – Refrigeration – Syllabus

REFRIGERATION – 60 HOURS		
Books-\$286.00 • Tax-\$17.50 • Tuition: \$1,344.00 • Total \$1,647.50		
Book: Commercial Refrigeration for Air Conditioning Wirz 3 rd Edition		
Completion of Principles of Electricity and Air Conditioning I courses is required. <i>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.</i>		
REFRIGERATION / F-281-AL		
16 Sessions	5:00 pm to 8:30 pm	Alexandria, VA Location
Tuesday, 9/3/2024 to 12/17/2024		Jose Luis Villalobos, Instructor

NAPE – The Managing Engineer – Syllabus

THE MANAGING ENGINEER – 45 HOURS		
Tuition: \$1,050.00 • Total \$1,050.00		
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-332-AL		
15 Sessions	4:00 pm to 7:00 pm	Alexandria, VA Location
Monday, 9/9/2024 to 12/16/2024		Nelson Peguero, Instructor