

HEATING & AIR CONDITIONING (HCR)

HCR-410 Electrical Applications I (3)

Covers general knowledge of basic electrical applications used by industry. Use of basic electrical equipment including multimeters is stressed. Topics include current, voltage, resistance, symbols and basic AC and DC circuits. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

HCR-450 Electrical Apps for HVAC II (3)

Continues the coverage of electrical applications used by HVAC installers. Students learn a more thorough explanation of voltage and current, including basic measuring techniques and safety concerns. Motors and transformers in their typical applications are also included. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Take HCR-410.

HCR-600 Pipe Joining Methods (3)

Includes proper techniques for joining pipes. Covers proper techniques for making a solder joint, brazed joint and threaded joint. Alternative techniques include flare, crimp and compression. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 2.0 lab

Prerequisite: Take HCR-605.

HCR-605 HVAC Installation I (5)

Provides a comprehensive introduction to designing and installing HVAC systems. Students learn sheet metal fabrication and installation, basic principles of heat transfer, and the basic refrigeration cycle applied to air conditioning. Arts & Sciences Elective Code: B
Hours per week: 2.0 lecture, 6.0 lab

HCR-610 HVAC Installation II (7)

Provides a comprehensive introduction to designing and installing HVAC systems. Other topics covered include refrigerant handling procedures, gas piping and sizing, chimney and vent calculations, and the uniform mechanical code. Arts & Sciences Elective Code: B
Hours per week: 3.0 lecture, 8.0 lab

Prerequisite: Take HCR-605.

HCR-710 Fundamentals of Plan and Print Reading (2)

Covers the fundamentals of blueprints and floor plans used for common layouts. Includes dimensions, specifications and interpretation of details found on typical sets of plans. Arts & Sciences Elective Code: B
Hours per week: 1.0 lecture, 2.0 lab

HCR-924 Honors Project (1)

Allows a qualified honors student to pursue a special concentration of study under the guidance of a faculty member. Requires completion of an honors project contract. May be taken more than once. Arts & Sciences Elective Code: B; Comments: Requires approval of supervising professor and dean
Hours per week: 1.0 lecture

HCR-928 Independent Study (1-3)

Provides readings, papers and basic research or other projects under the individual guidance of a staff member. Arts & Sciences Elective Code: B; Comments: Permission of instructor, dean
Hours per week: 1.0 lecture

HCR-932 Internship (1-3)

Focuses on providing the student practical experience in an HVAC related work environment. Includes employer/supervisor evaluations and instructor visits/interview. Arts & Sciences Elective Code: B
Hours per week: 4.0 internship