HEATING AND AIR CONDITIONING TECHNOLOGY (ACT)

1124 Basic Compression Refrigeration. (4)
An introduction to the field of refrigeration and air conditioning. Emphasis is placed on principles of safety, thermodynamics and heat transfer. Two lecture and four lab hours per week.

1133 Tools and Piping. (3)
Various tools and pipe connecting techniques. Covers tools and test equipment required in heating, ventilation, air conditioning and refrigeration. Two lecture and two lab hours per week.

1213 Controls. (3)
Fundamentals of gas, fluid, electrical and programmable controls. Two lecture and two lab hours per week.

1313 Refrigeration Systems Components. (3)
An in-depth study of the components and accessories of a sealed system including metering devices, evaporators, compressors and condensers. Two lecture and two lab hours per week.

1713 Electricity for Heating, Ventilation, Air Conditioning and Refrigeration. (3)
Basic knowledge of electricity, power distribution, components, solid state devices and electrical circuits. Two lecture and two lab hours per week.

1812 Professional Service Procedures. (2)
Business ethics necessary to work with both the employer and customer. Includes resume, record keeping and service contracts. Two lecture hours per week.

2324 Commercial Refrigeration. (4)
A study of various commercial refrigeration systems. It includes installation, servicing and maintaining systems. Two lecture and four lab hours per week.

2414 Air Conditioning I. (4)
Various types of residential and commercial air conditioning, including hydronic, absorption and desiccant systems. Two lecture and four lab hours per week.

2424 Air Conditioning II. (4) Prerequisite: ACT 2414 Air Conditioning I
An in-depth course in the installation, start-up, maintenance and air quality of complete heating and air conditioning systems. Two lecture and four lab hours per week.

2433 Refrigerant, Retrofit and Regulations. (3)
Regulations and standards for new retrofit and government regulations. Includes OSHA regulations, EPA regulations, local and state codes. Two lecture and two lab hours per week.

2513 Heating Systems. (3)
Various types of residential and commercial heating systems. Includes gas, oil, electric, compression and hydroponic heating systems. Two lecture and two lab hours per week.

2624 Heat Load and Air Properties. (4)
Introduction to heat load calculations for residential and light commercial heating, ventilation, air conditioning and refrigeration systems. Included are air distribution, duct sizing, selection of grills and registers, types of fans, air velocity and fan performance. An introduction is provided to air testing instruments and computer usage. Two lecture and four lab hours per week.

291(1-3) Special Project in Heating and Air Conditioning Technology. (1-3)
Prerequisite: Consent of instructor
A course designed to provide the student with practical application of skills and knowledge gained in the courses. The instructor works closely with the student to insure that the selection of a project will enhance the student=s learning experience. Two to six lab hours per week.

292(1-6) Supervised Work Experience in Heating and Air Conditioning Technology. (1-6) Prerequisite: Consent of instructor
A course which is a cooperative program between industry and education and is designed to integrate the student=s technical studies with industrial experience. Variable credit is awarded on

the basis of one semester hour per 45 industrial contact hours. Three to eighteen hours externship.