Air Conditioning (AIR CON) 101
Intro Air Conditioning I
Fundamentals of heat and measurement; intensity, quantity and modes of flow; factors of comfort studied and explored in relation to design of a system in connection with function of that system. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 102
Intro Air Conditioning II
Refrigeration, its theory, systems, components, and control as applied to air conditioning; study of refrigeration equipment, including function, selection, proper installation, maintenance, and service. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 103
Duct Design And Layout
Conventional low velocity duct design; high velocity air distribution design and systems using sophisticated design techniques; layout techniques. Writing assignments, as appropriate to the discipline, are part of the course.

Grade of C or better in (AIR CON 101 and AIR CON 102) or Consent of Department Chairperson.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 104
Equipment and Systems Controls
Pneumatic, electric, and electronic controls and control systems; selection and design of control systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 105
Owner-Contractor Management
Fundamentals of management techniques for air conditioning dealers, contractors, and entrepreneurs. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 106
Sheet Metal I
Fabrication and installation of ducts used in air conditioning, ventilation and heating systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 107
Welding I
Techniques of welding and cutting different metals under a variety of conditions. Students will learn to weld, butt, edge, lap and fillet joints. Oxy-acetylene, oxy-propane and carbon arc methods are employed. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 120
Introductory Laboratory
Shop and laboratory safety, use of hand tools for air conditioning, refrigeration and heating, use of meters, instruments and gauges. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 121
Advanced Laboratory
Covers meters, instruments, and troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 150
Intro To Refrigeration
Servicing, installation, reinstallation, warranty, and troubleshooting of home and commercial refrigeration systems. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 151
Commercial Refrigeration
Selection, maintenance, installation of commercial refrigeration. Writing assignments, as appropriate to the discipline, are part of the course.
Grade of C or better in AIR CON 150.
3 Lecture hours. 3 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 155
Refrigeration Laboratory
Gauges, meters, and troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 156
Domestic Refrigeration Laboratory
Domestic and hermetic servicing. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK

Air Conditioning (AIR CON) 157
Analysis Laboratory
Analysis of domestic and commercial hermetic systems, mechanical and electrical servicing. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.
Offered At: KK
Air Conditioning (AIR CON) 158  
**Commercial Refrigeration Laboratory**  
Installation of components and complete systems, service and maintenance of those components and systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

Air Conditioning (AIR CON) 160  
**Intro to Principles of Heating**  
Warm air systems, hot water systems, steam systems, gas fuel, oil fuel, and coal fuel at both residential and commercial levels; control systems and their installation, maintenance, service and sub-electrical systems and their service. Writing assignments, as appropriate to the discipline, are part of the course.
3 Lecture hours. 3 Credit Hours.

**Offered At:** KK

Air Conditioning (AIR CON) 165  
**Heating Laboratory**  
General study of domestic and commercial systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

Air Conditioning (AIR CON) 204  
**Advanced Control Systems**  
Theory, maintenance and repair of advanced electrical, mechanical and electronic controls and control systems. Design techniques of control systems explored. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in AIR CON 104.*
2 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** KK