

INDUSTRIAL MAINTENANCE & AMMONIA REFRIGERATION TECHNOLOGY

Mission

To provide industry with entry-level employees who possess a working knowledge of the industrial maintenance field and ammonia refrigeration maintenance field. An emphasis is placed on electrical theory, concepts, and repair.

Objectives

1. To learn the proper safety procedures related to industrial maintenance
2. To develop good working habits necessary to obtain and sustain employment
3. To develop troubleshooting skills for the care and operation of industrial machines and instruments
4. To become familiar with preventative maintenance techniques
5. To recognize the importance of continuing education and involvement in student organizations
6. To facilitate energy management

Program Information

Industrial Maintenance Technology is designed to instruct the student in the related field of industrial maintenance and prepare the student for an entry-level position in maintenance and repair of industrial machines, equipment, and power distribution. Emphasis is placed on troubleshooting skills, preventative maintenance techniques and safety. Students will gain the knowledge and performance potential to work in the industrial, commercial, or private sector.

Students also learn theory of refrigeration and related subjects are covered to provide an understanding of the task-oriented topics and activities experienced in the classroom and laboratory. Refrigerant flow, system layout, and component synergy are covered with emphasis on safe work practices. OSHA's Process Safety Management Program, EPA's Risk Management Plan, and Homeland Security Anti-Terrorism Standards are studied as they relate to ammonia refrigeration. The students are challenged to fully understand the operation and maintenance of industrial refrigeration systems.

Students will learn the proper safety procedures in the operation, care and maintenance of machinery and instruments related to their vocation. Also included is the opportunity to get actual experience in machinery repair and related repair and maintenance.

- Length of program: 2 semesters and 1 summer term
- Estimated cost of program including in-state tuition, fees, books and supplies: \$6,071.

Curriculum

The following courses must be satisfactorily completed to receive a diploma in Industrial Maintenance Technology:

Course Number	Course Name	Clock Hours	Credit Hours	FA hours
COM1103	Technical Communications I	48	3	1.6
COM1203	Technical Communications II	48	3	1.6
IMT1104	DC/AC Fundamentals/Lab	96	4	3.2
IMT3214	Programmable Controllers/Lab	96	4	3.2
IMT 1003	Maintenance Fundamentals	48	3	1.6
IMT1103	Schematics Reading	48	3	1.6
IMT1403	Industrial Electricity	48	3	1.6
IMT1503	Industrial Wiring Methods	48	3	1.6
IMT1603	Motors & Motor Controls	56	3	1.86
IMT1705	Fluid Power & Mechanics/ Lab	96	5	3.2
IMT1903	Industrial Troubleshooting Skills	56	3	1.86
MTH1143	Technical Mathematics I	48	3	1.6
ARS1803	Boiler Operator Theory	48	3	1.6
ARS1101	NH ₃ Application	48	1	1.6
ARS 1105	Ammonia Refrigeration System	96	5	3.2
WLD1503	Basic Welding	48	1	1.6
Total Hours		976	50	32.53

Suggested Schedule

Semester I

IMT1003	Maintenance Fundamentals
IMT1104	DC/AC Fundamentals
IMT1103	Schematic Reading
ARS1105	Ammonia Refrigeration Systems
IMT1403	Industrial Electricity
IMT1503	Industrial Wiring Methods
COM1103	Technical Communications I
MTH1103	Technical Mathematics I

Semester II

IMT1603	Motors & Motor Controls
IMT1705	Fluid Power & Mechanics
ARS1803	Boiler Operator Theory
ARS1101	NH ₃ Application
IMT1903	Industrial Troubleshooting
IMT3214	Programmable Controllers

Summer

WLD1503	Basic Welding
COM1203	Technical Communications II