

SUBJECTS AND COURSES

COURSE DESCRIPTIONS - INDUSTRIAL MAINTENANCE (INT)

INT 117 Principles of Industrial Mecha

This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment. Topics include the basic application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion, students will be able to perform basic troubleshooting, repair and maintenance functions on industrial production equipment. **22 Credit Hours**

INT 118 Fund of Industrial Hydra&penum

This course includes the fundamental concepts and theories for the safe operation of hydraulic and pneumatic systems used with industrial production equipment. Topics include the physical concepts, theories, laws, air flow characteristics, actuators, valves, accumulators, symbols, circuitry, filters, servicing safety, and preventive maintenance and the application of these concepts to perform work. Upon completion, students should be able to service and perform preventive maintenance functions on hydraulic and pneumatic systems. This is a CORE course.

4 Credit Hours

INT 121 Hydraulics Trouble Shooting

This course provides instruction in maintenance and troubleshooting procedures needed for safe and proper repair of hydraulic systems used with industrial production equipment. Topics include maintenance and troubleshooting procedures, hydraulic system maintenance and troubleshooting techniques, effects of heat, leakage, and contamination on components and system operation, component maintenance and troubleshooting, reading and interpreting system diagrams, and design and troubleshooting of hydraulic circuits and systems. Upon course completion, students will demonstrate the ability to troubleshoot and repair industrial hydraulic systems. **5 Credit Hours**

INT 124 Production Equip Layout & Inst

PREREQUISITE: As required by college This course provides instruction in the layout and installation of production equipment and the use of rigging and installation tools. Topics include the use of wire rope, chain and metal-mesh, and fiber rope and webbing slings, industrial hoists and cranes, crane operation, scaffolds and ladders, machine anchoring for vibration control, moving and setting new equipment, leveling and alignment, preparing equipment for test run, test run guidelines, and safety precautions. Upon course completion, students will be able to install production equipment. **5 Credit Hours**

INT 126 Preventive Maintenance

This course focuses on the concepts and applications of preventive maintenance. Topics include the introduction of alignment equipment, job safety, tool safety, preventive maintenance concepts, procedures, tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply proper preventive maintenance and explain predictive maintenance concepts.

5 Credit Hours

INT 127 Prin of Indus Pumps & Pipe Sys

This course provides instruction in the fundamental concepts of industrial pumps and piping systems. Topics include pump identification, operation, and installation, maintenance and troubleshooting, and piping systems and their installation. Upon course completion, students will be able to install, maintain, and troubleshoot industrial pumps and piping systems. **4 Credit Hours**

INT 134 Ind Maint Weld & Metal Cut Tec

This course provides instruction in the fundamentals of acetylene cutting and the basics of welding needed for the maintenance and repair of industrial production equipment. Topics include oxy-fuel safety, choice of cutting equipment, proper cutting angles, equipment setup, cutting plate and pipe, hand tools, types of metal welding machines, rod and welding joints, and common welding passes and beads. Upon course completion, students will demonstrate the ability to perform metal welding and cutting techniques necessary for repairing and maintaining industrial equipment. This is a CORE course. **4 Credit Hours**

INT 192 Co-op

PREREQUISITE: Permission of instructor In this series of courses, students work on a part-time basis in a job directly related to Industrial Maintenance Technology. The employer evaluates the student's performance and the student submits a descriptive report of his or her work experiences. Upon completion, the student will demonstrate skills learned in an employment setting. **15 Credit Hours**