INDUSTRIAL MAINTENANCE TECHNOLOGY

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IT 102 Pipefitting Principles 1-4 Credits
This is a one to four credit lecture, discussion, and laboratory course designed to introduce students to the basics of pipefitting. This course will cover basic pipefitting and introduce students to the tools and materials used to complete projects in industries associated with the pipefitting field. Prerequisite: Must have completed IT 106 or have been accepted into the Industrial Millwright Program.

IT 103 Industrial Pump Technolgy 1-4 Credits
A one-to-four-credit laboratory and lecture course covering various industrial pumps. Emphasis is on centrifugal pump maintenance and repair and introductory hydraulic engineering concepts that pertain to centrifugal pumps. Pump seals, packing techniques, and bearings are also discussed. Unlimited Repeatability. Prerequisite: Must have completed IT 106 and IT 201 and IT 209 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 105 Mechanical Power Trans 1-4 Credits
A one-to-four-credit lecture, demonstration, and laboratory course in the study and application of bearings, belt and mechanical drives, chain and chain drives, couplings, clutches, gears, and fluids in the transmission of power used in the industrial processes. Prerequisite: Must have completed IT 103 and IT 106 and IT 201 and IT 209 and IT 214 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 106 Maintenance/Process Term 1-4 Credits
A one-to-four credit lecture, discussion, and laboratory course designed to introduce students to millwright and process terminology. Students will learn basic terminology and functions of primary process equipment and their sub-components. This course will also cover parts of basic safety policies and procedures for use in the laboratory and also translate to the job or work site safety. Prerequisite: Must have been accepted into the Industrial Maintenance Program.

IT 201 Blueprint Read/Meas Fund 1-6 Credits
A laboratory and lecture course covering blueprint reading fundamentals for mechanical and construction drawings. Also, an introduction to different types of measuring instruments and their proper uses in industry. Prerequisite: Must have completed IT 106 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 207 Boiler/Convey/Pneum Systm 1-5.5 Credits
A one to five-point-five credit lecture, demonstration, and laboratory course in the study and application of boiler, conveyer, and pneumatic systems. The course will cover operation, maintenance, and repair of boiler, conveyer, and pneumatic systems. Safety is emphasized. Unlimited repeatability. Prerequisite: Must have completed IT 103 and IT 106 and IT 201 and IT 209 and IT 214 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 208 Fluid Power 1-9 Credits
A review of fluid power mechanics with an emphasis on schematic symbols, circuit operation and design, hydraulic component theory and operation, and hydraulic terminology. Course may be taught in modules. Prerequisite: Must have completed DT 100 or TA 100 or have been accepted into the Diesel Technology Program or have been accepted into the Industrial Maintenance Program.

IT 209 Principles of Rigging 1-4 Credits
This is a laboratory and lecture course covering rigging practices, proper lifting techniques and safety. Hand signals based on national standards will be taught and practiced also. May be repeated up to 16 credits. Prerequisite: Must have completed IT 106 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 210 Failure Analysis 1-4 Credits
A one-to-four credit lecture, demonstration, and laboratory course in the study of predictive and preventive maintenance techniques. Emphasis will be placed on root cause analysis, vibration analysis, and the proper use of lubrication to prevent failures. Prevention of maintenance problems through predictive methods will be emphasized. Prerequisite: Must have completed IT 103 and IT 105 and IT 106 and IT 201 and IT 207 and IT 208 and IT 209 and IT 214 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 212 Inventory and Planning 1-2 Credits
A one-to-two-credit lecture designed to acquaint the student with the principles of planned maintenance and inventory control as it relates industrial maintenance. Prerequisite:

IT 214 Basic Electrical Theory 1-4 Credits
A one-to-four credit lecture, demonstration, and laboratory course in the diagnosis of common electrical problems associated with industrial equipment. The course covers basic AC/DC electrical theory, electrical motor maintenance, motor control, and uses of electrical tools for troubleshooting. Prerequisite: Must have completed IT 106 and IT 201 and IT 209 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 216 Basic Metallurgy 1-4 Credits
A one-to-four credit lecture, demonstration, and laboratory course which emphasizes the practical approach to the basic principles of metallurgy. The course explores the behaviors of metals subjected to metallurgical processes and explains how desired material properties are attained. Prerequisite: Must have completed IT 106 or have been accepted into the Industrial Maintenance Program.

IT 220 Alignment Principles 1-6 Credits
Study and practice and shaft and gear alignments using the four-step method to align and correct misalignments as a procedure to extend the life of bearings, couplings, and seals, and to reduce vibration in equipment and components and gears. Tools and equipment used in the course include dial indicators, and electronic and laser measuring devices. Safety is emphasized. Unlimited repeatability. Prerequisite: Must have completed IT 103 and IT 105 and IT 106 and IT 201 and IT 207 and IT 208 and IT 209 and IT 214 and IT 216 and TA 100 or have been accepted into the Industrial Maintenance Program.

IT 299 Special Topics Industrial Tech 2 Credits
A special topics course in Industrial Maintenance Technology to serve a variety of needs. Topics are determined by the course instructor. Unlimited repeatability. Prerequisite: