ELEC1170 - Predictive Maintenance Technology

Credits:	2 (1/1/0)
Description:	This course is designed to introduce students to the current predictive maintenance technology used in the best maintenance practices of top-performing companies in industry. The course will cover infrared thermography, vibration analysis, ultrasonic detection, oil spectrum analysis, motor current analysis and other technologies. These methods are used in electrical and mechanical maintenance programs in industry to predict failures of electrical connections, equipment, bearings and other critical machines. Students will also be introduced to best maintenance practices and their impact on the future of industry in the United States.
Prerequisites:	
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Identify principles of a reliability centered maintenance program. 2. Perform vibration data collecting on rotating equipment. 3. Identify the symptoms of poorly aligned equipment using accelerometer and data collector. 4. Produce accurate reports differentiating between levels of bearing and equipment performance and failure. 5. Demonstrate ability to collect data using an infrared camera on electrical and mechanical equipment. 6. Interpret infrared scan reports. 7. Identify pneumatic leaks and other problems using an ultrasonic listening device. 8. Identify various motor problems resulting from improper balance, electrical currents and air gaps.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*

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