

**Eastern WV Community & Technical College
Master Course Record**

Course Prefix and Number: ELM 218
Course Title: Maintenance Applications
Recommended Transcript Title: Maintenance Applications
Date Approved/Revised: 10/16/07; 5/25/17; 11/20/17
Credit Hours: 3 Contact hours per week (Based on 15 week term): Lecture: 2 Lab: 3
Prerequisite: ELM 217 – Industrial Maintenance Fundamentals Corequisite: None Pre/Corequisite:
Grading Mode: Letter Grade
Catalog Description: This course introduces the student to a comprehensive coverage of maintenance troubleshooting principles, procedures and practices used in maintaining industrial systems. Electrical, refrigeration, boiler, HVAC, mechanical and fluid power systems will be studied. Safety, services and repair principles and practices will be covered.
Course Outcomes: Students will learn to: 1. Understand how to utilize a computerized maintenance monitoring system (CMMS) 2. Demonstrate a knowledge of vibration analysis 3. Examine vibration analysis and lubrication oil analysis reports 4. Demonstrate the operation of simple machines 5. Describe how single and three phase electricity is generated and transmitted 6. Understand how to utilize and maintain industrial programmable controller systems 7. Demonstrate a knowledge of how compressors and pneumatic equipment operate and are maintained 8. Describe how thermal cameras are used for inspection of mechanical and electrical equipment
Implementation Cycle: Fall
Role in College Curriculum: (Check all that apply) <input type="checkbox"/> General Education Core (Specify category) <input checked="" type="checkbox"/> Technical Core: Wind Energy Technology <input checked="" type="checkbox"/> Restricted Elective: Wind Energy Technology <input type="checkbox"/> General Elective <input type="checkbox"/> Workforce Education <input type="checkbox"/> Other (Please specify)
Course Fee: Yes
Instructor's Qualifications: Bachelors of Science in Engineering/Technology or related discipline and/or expertise and experience in the field.

Course Number & Title: ELM 218 – Maintenance Applications
Date Prepared/Revised: 10/16/07; 5/25/15; 11/6/17
Date Course Approved by Curriculum Committee: 11/6/17
Date Course Approved by LOT: 11/02/07; 09/21/15; 11/20/17

Expanded Course Description:

This course introduces the student to a comprehensive coverage of maintenance, troubleshooting principles, procedures and practices used in maintaining industrial systems. Electrical, refrigeration, boiler, HVAC, mechanical systems, fluid power systems, data acquisition, and use of thermal cameras will be studied. Safety, service and repair principles and practices will also be covered. Students will also have the knowledge to obtain PMMI (The Association for Packaging and Processing Technologies) certificates of completion and be registered in the PMMI National Database.

Prepared by: Skip Landes, Faculty, 5/25/17

Eric Putze, Advanced Technology/Wind Energy Faculty, 11/6/17

Approved Per LOT Minutes

Dean, Academic and Student Services

Date