

<u>3/3/15</u>	DATE	<u>Technology</u>	DIVISION
	REQUIRED COURSE		NEW COURSE
	ELECTIVE COURSE	<u>X</u>	REVISION

LAKE LAND COLLEGE

Course Information Form

COURSE NUMBER IND054 TITLE Troubleshooting and Preventive Maintenance

SEM CR HRS 3 LT HRS 2.0 LAB HRS 2.0 SOE HRS _____ ECH _____

COURSE PCS# _____ (Assigned by Administration)

Prerequisites: **MET040, MET042, IND044**

Catalog Description (40 Word Limit): Provides those skills and insights necessary to detect and solve problems which occur in industrial machinery. Includes procedures aimed at prevention rather than emergency action.

List the Major Course Segments (Units)	Lt Hrs	Lab Hrs
Troubleshooting Mechanical Components	9	
Troubleshooting Hydraulic and Pneumatic Systems	7.5	15
Troubleshooting Electrical Devices	7.5	15
Preventive Maintenance	6	

EVALUATION: Quizzes X Exams X Oral Pres _____ Papers _____

Lab Work X Projects X Comp Final X Other _____

Textbook: Pneumatic Troubleshooting
Division of Telemedia 1990

Hydraulic Troubleshooting Mechanical Maintenance
Division of Telemedia 1990

Electrical Troubleshooting Electrical Maintenance
Division of Telemedia 1991 4TH Edition

Major Course Segment	Hours	Learning Outcomes
Troubleshooting Mechanical Components	9	Students should understand uses and types of drive systems, troubleshooting procedures and installations of a variety of drive systems.
Troubleshooting Hydraulic and Pneumatic Systems	22.5	Students should be able to read hydraulic and pneumatic schematics and use these for troubleshooting systems and individual components.
Troubleshooting Electrical Devices	22.5	Students should be able to diagnose problems related to electrical components including the use of test meters.
Preventive Maintenance	6	Students should understand the importance of preventive maintenance in reduction of “down” time and costs by using a variety of methods.

Course Outcomes: At the successful completion of this course, students will be able to:

- Successfully complete diagnoses of electrical problems on the electrical trainer.
- Successfully diagnose and identify a hydraulic problem on the hydraulic trainer.
- Successfully complete a ladder diagram