



MONROE COUNTY
COMMUNITY COLLEGE

Course Outcome Summary

Standard Course

WELD-131 Liquid Penetrant/Magnetic Particle Test

Course Information

Division	ASET
Contact Hours	45
Theory	15
Lab Hours	30
Total Credits	2

Prerequisites **RDG 090 and ENG 090 or qualifying score on accepted placement tests and WELD 130 Introduction to Non-Destructive Testing**

Course Description

This course is to train students to carry out liquid penetrant and magnetic particle testing of engineering components. The course is divided into two parts. In the first part students will learn the principles of liquid penetrant testing, classification of penetrant materials, testing methods and testing equipment. In the second part, the students will learn the principle of magnetic particle testing, performing magnetic particle test, and steps and sequence involved in magnetic particle testing will be learned in theory and practice. Students will also learn the precautions to be observed during testing, interpretation and evaluation of indications formed by discontinuities, procedure and applicable codes for acceptance and rejection of discontinuities. The classroom lectures will be supplemented by a series of laboratory exercises to provide hands-on training in performing these tests.

Course Outcomes

In order to evidence success in this course, students will be able to:

1. Describe basic principles of LPT and MPT
2. Select and employ most suitable precleaning method and materials for a given situation
3. Design the steps and sequences to carry out LPT and MPT for a given component
4. Demonstrate the ability to select the right equipment and procedure for a given test
5. Prepare reports describing test results
6. Demonstrate ability to identify various indications and attribute them to the causes.
7. Prepare for ANST LP AND MP Level I & II test battery examination

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By: Mark A. Jager, PC 3/10/2022