



MASTER COURSE OUTLINE

A. IMMR 2735 Preventive Maintenance

B. COURSE DESCRIPTION:

This course emphasizes Preventive Maintenance (PM), the value of a good maintenance program, and the returns that can be expected with its implementation. Topics covered include maintenance checklists, PM costs, lost revenue costs, and starting an on-site PM program. The monitoring of equipment includes the use of infrared camera (thermography), laser alignment, vibration analysis, and oil analysis.
(3 Cr – 1 lect, 2 lab)

C. *Core Theme: Critical Thinking

D. RIVERLAND INSTITUTIONAL LEARNING OUTCOMES:

This course addresses the following Riverland Institutional Learning Outcome(s):

- ILO 1: critical thinking (*Core Theme Goal 2*)
- ILO 2: awareness of the larger global community (*Core Theme Goal 7 or 8*)
- ILO 3: ethical, engaged citizenship (*Core Theme Goal 9 or Goal 10*)
- ILO 4: communication and collaboration (*Discipline Goal 1 and by any learning outcome(s) involving communication or collaboration*)

E. MAJOR CONTENT AREAS:

- Preventive Maintenance (PM) schedules
- Belts
- Pulleys
- Pivot points
- Oil level
- Grease machines
- Bearing inspection

F. GOAL TYPE, OBJECTIVES AND OUTCOMES:

<u>GOAL TYPE</u>	<u>OBJECTIVES</u> Students will be able to	<u>OUTCOMES</u> The student will successfully
* <u>Critical Thinking</u>	gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.	1. demonstrate equipment service and maintain documentation.
<u>CS</u>	identify a PM schedule and what it should include.	1. create a PM schedule and set-up a file.
<u>CS</u>	develop a study of gear boxes, belts, and pulleys.	1. perform routine PM on equipment.

G. SPECIAL INFORMATION:

This course may require use of the Internet, the submission of electronically prepared documents and the use of a course management software program. Students who have a disability and need accommodations should contact Accessibility Services at the beginning of the semester. This information will be made available in alternative format, such as Braille, large print, or current media, upon request.

H. COURSE CODING INFORMATION:

Course Code S/ Class Maximum 24; Letter Grade

Revision date: 10/25/12; 04/02/24; 02/03/26

AASC Approval date: 11/20/12; 04/16/24; 03/17/26

*These five MnTC Goals have been identified as Riverland Community College Core Themes. Every course in the Riverland Community College curriculum shall meet outcomes from one of these themes.

**These five MnTC Goals have been identified as Riverland Community College Disciplines. Riverland's MnTC courses also shall meet outcomes from a Discipline Area.

NOTE: The Minnesota Transfer Curriculum "10 Goal Areas of Emphasis" are reflected in the five required discipline areas and five core themes noted in the Riverland Community College program of study guide and/or college catalog.

*Riverland Community College Core Themes	MnTC Goal Number
Critical Thinking (CT)	2
Human Diversity (HD)	7A, 7B, 7A/B
Global Perspective (GP)	8
Ethical and Civic Responsibility (EC)	9
People and the Environment (PE)	10

**Riverland Community College Discipline Areas	MnTC Goal Number
Communication (CM)	1
Natural Sciences (NS)	3
Mathematics/Logical Reasoning (MA)	4
History and the Social & Behavioral Sciences (SS)	5
Humanities and Fine Arts (HU)	6

Riverland