HIBBING COMMUNITY COLLEGE
COURSE OUTLINE

COURSE TITLE & NUMBER: Industrial Electrical Systems: IST 2350
CREDITS: 3 (3 Lec/0 Lab)
PREREQUISITES: IST 1450: Math Lab 2

CATALOG DESCRIPTION:
Industrial Electrical Systems introduces the student to practical electrical knowledge needed in an industrial setting. The course will encompass basic electrical theory, electrical safety and motor control.

OUTLINE OF MAJOR CONTENT AREAS:
1. Safety
   A. Lock out Tag out
   B. Arc flash
   C. Ground fault
2. Electrical theory
   A. Ohm's Law
   B. Electrical symbols
3. Simple electrical circuits

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will demonstrate appropriate attitudes and behaviors: honesty, responsibility, respect and initiative.
2. Students will identify occupational safety hazards and follow appropriate safety precautions.
3. Students will exhibit safe housekeeping procedures in the lab.
4. Students will work cooperatively and understand the roles of leadership and supervision.
5. Students will use techniques and information learned in class to critically and logically complete equipment duties and operations.
6. Students will explain and demonstrate Ohm's Law.
7. Students will identify system voltages.
8. Students will identify distribution panels and motor control centers.
9. Students will explain reasons for equipment overloads.
10. Students will analyze basic motor control strategy.
11. Students will identify motor control problems and faults.

MNTC GOALS AND COMPETENCIES MET: N/A
HCC COMPETENCIES MET:
Working Productively and Cooperatively

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

Curriculum Committee Approval Date: March 13, 2018

AASC APPROVAL DATE: March 21, 2018
REVIEW DATE: March 2023

IST 2350
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