HIBBING COMMUNITY COLLEGE
COURSE OUTLINE

COURSE NUMBER & TITLE: ASES 2010: Antilock Brakes/Traction Control
CREDITS: 2 (1 Lec / 1 Lab)
PREREQUISITES: Instructor approval

CATALOG DESCRIPTION:
The Antilock Brake and Traction Control course covers operation, diagnosis and repair of Antilock Brakes, Traction Control and Stability Control systems currently found in industry.

OUTLINE OF MAJOR CONTENT AREAS:
1. Safety precautions
2. Base brake system review
   A. Hydraulic brakes
   B. Rear Antilock brakes
3. Basic ABS operation
4. Types of ABS systems
5. Basic Traction Control operation
6. Types of Traction Control and Stability Control systems
7. Teves ABS and Traction Control
   A. Components
   B. Hydraulic operation
   C. Controller inputs/outputs
   D. Electronic operation

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will identify and inspect electronic brake control system components; determine necessary action.
2. Students will identify traction control/vehicle stability control system components.
3. Students will diagnose electronic brake control system electronic control(s) and components by retrieving diagnostic trouble codes, and/or using recommended test equipment; determine necessary action.
4. Students will bleed the electronic brake control system hydraulic circuits.
5. Students will test, diagnose, and service electronic brake control system speed sensors (digital and analog), toothed ring (tone wheel), and circuits (includes output signal, resistance, shorts to voltage/ground, and frequency data).
MCTC GOALS AND COMPETENCIES MET:
N/A

HCC COMPETENCIES MET:
Working Productively & Cooperatively
Communicating Clearly & Effectively
Thinking Creatively & Critically

STUDENT CONTRIBUTIONS:
The student will:
1. Attend all class sessions.
2. Participate in class activities and discussions.
3. Request assistance when needed.
4. Complete and hand in assigned work when due.

Attendance is critical: if the student is not present, they cannot participate in or, contribute to the learning process.

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

ADDITIONAL INFORMATION
Handouts and other materials will be provided in class.
Factory and aftermarket service manuals will be used for reference.

Curriculum Committee Approval Date: April 3, 2018

AASC APPROVAL DATE: April 18, 2018
REVIEW DATE: April 2023