COURSE NUMBER & TITLE: ASES 1018: Automotive Math Applications
CREDITS: 1 (1 Lec / 0 Lab)
PREREQUISITES: None

CATALOG DESCRIPTION:
Automotive Trade Math offers a problem-solving approach to math applications used by automotive technicians. These applications employ basic mathematical principles, direct and computed measurements, gear and pulley applications, formula solution, and geometric fundamentals.

OUTLINE OF MAJOR CONTENT AREAS:
1. Decimal to fraction conversion
2. Addition and subtraction of fractions
3. Addition and subtraction of decimals
4. Simple percentage
5. Measurement
   A. English linear
   B. Metric linear
6. Machinist ruler usage
7. Micrometer reading
8. Circular measurement
9. Angular measurement
10. Area and volume measurement
11. Ratios of gears and pulleys

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction.
2. Students will demonstrate proper use of precision measuring tools (i.e. micrometer, dial-indicator, dial-caliper).
3. Students will identify standard and metric designation.

MNTC GOALS AND COMPETENCIES MET: N/A

HCC COMPETENCIES MET:
Working Productively and Cooperatively
Communicating Clearly and Effectively

STUDENT CONTRIBUTIONS:
A. Be present—if you’re not here you can’t get paid.
B. Participate—you will get out what you are willing to put in.
C. Work safe—it’s hard to fix cars if you cut off your fingers.
D. Take care of yourself—your body is your most valuable tool.
E. Keep your driver’s license—techs without good driving records don’t have jobs.
F. Think outside of the box—there is always a way.
G. Be a Professional—act like it, look like it, smell like it.
H. Communicate—nobody gets fired by asking for help

ADDITIONAL INFORMATION:
- Handouts and other materials will be provided in class.
- Hazardous Waste Policy: proper handling practices will be used.
- Safety Eyeglass Policy: safety glasses will be worn at all time while working in the labs.
- Shop Safety Policy: safe shop working practices must be followed.

Violations of the above policies will be verbal or documented warnings and will be handled on a case-by-case basis.

METHODS FOR EVALUATING STUDENT LEARNING:
Student assessment shall take place using instruments selected/developed by the course instructor.

Curriculum Committee Approval Date: December 4, 2018

AASC APPROVAL DATE: December 19, 2018
REVIEW DATE: December 2023