COURSE TITLE & NUMBER:  DSL 1541: Cummins and Caterpillar Service Overhaul  
CREDITS:  2 (Lec 1/Lab 1)  
PREREQUISITES:  Instructor approval.

CATALOG DESCRIPTION:  
Cummins and Caterpillar Service Overhaul covers Cummins and Caterpillar engine service, operation, construction and in-frame repair procedures. Students remove and replace a cylinder kit, inspect and measure parts, and rebuild accessory components.

OUTLINE OF MAJOR CONTENT AREAS:  
1. Four cycle engine principles  
   A. Caterpillar  
   B. Cummins  
   C. John Deere  
   D. Deutz  
2. Design variations  
3. Engine systems  
   A. Fuel  
   B. Cooling  
   C. Air  
   D. Lubrication  
4. Preventative maintenance  
5. Troubleshooting  
6. In-frame repairs

COURSE GOALS/OBJECTIVES/OUTCOMES:  
1. Students will explain disassembly and disassemble engine.  
2. Students will perform engine component inspections.  
3. Students will reassemble an engine.  
4. Students will check engine timing.  
5. Students will write engine service report.

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

STUDENT CONTRIBUTIONS:
The student is expected to
1. attend all lectures and working sessions.
2. participate in class activities.
3. participate in class discussions.
4. hand in outside assignments when due.
5. ask questions if he/she does not understand any part of the instructions or procedures.

METHODS FOR EVALUATING STUDENT LEARNING:
Student learning is evaluated through exams, lab work, assignments, class participation, projects, lab reports and logs.

ADDITIONAL INFORMATION
Various manufacturers’ service manuals.
Instructor handouts and notes.

Curriculum Committee Approval Date:

AASC APPROVAL DATE: January 10th 2018
REVIEW DATE: January 2022