



MASTER COURSE OUTLINE

A. DESL 1103 Applied Diesel Engines Lab

B. COURSE DESCRIPTION:

This course requires students to safely disassemble a diesel training engine. The students clean up, label, measure, evaluate, and properly reassemble all components. Adjustments are made to the engine's fuel system. The project engine must be correctly assembled and run properly at the end of the course. A workbook is completed which tracks progress through the project. This course, along with other program courses, satisfies the task requirements set forth by the Automotive Service Excellence (ASE) Education Foundation accreditation.
(3 Cr – 0 lect, 3 lab)

C. **Core Theme: Critical Thinking

D. MAJOR CONTENT AREAS:

- Diesel engine disassembly
- Parts organization, cleaning, identification, and evaluation
- Precision measuring related to diesel engine repair
- Diesel engine assembly and final adjustments
- Safe engine operation and testing

E. GOAL TYPES, 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. perform disassembly, cleaning, measuring, reassembly, and test run
<u>CS</u>	demonstrate safe skills in the shop related to engine disassembly, parts cleaning, measuring, and inspection	1. complete instructor approved preliminary task list
<u>CS</u>	understand project engine reassembly	1. reassemble the project engine
<u>CS</u>	test run and make final adjustments to the project engine	1. run engine and complete final adjustments

F. 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 the instructor or the Student Success Center 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.

G. COURSE CODING INFORMATION: Course Code S/Class Maximum 25; Letter Grade

Revision date: 01/10/20

AASC Approval date: 04/19/11 ; 3/24/2020

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

*These five MnTC Goals have been identified as Riverland Community College Disciplines.

** These five MnTC Goals have been identified as Riverland Community College Core Themes.

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.