

# Minnesota

## Articulated College Credit Agreement

[www.CTEcreditMn.com](http://www.CTEcreditMn.com)

### **Articulated College Credit Agreement:**

Through Articulated College Credit (ACC), specific college curriculum learning outcomes and assessments are embedded in participating high school career and technical education (CTE) programs as specified in this agreement. Relevant knowledge, skills, and standards are taught by qualified CTE high school instructor(s) in one or more high school course. ACC is awarded if the student meets the college equivalency standards and later enrolls in the college(s) listed below requiring the course in a specific program.

**Agreement Name: Heavy Duty Truck Technology – Diesel Fundamentals**  
**Agreement Reviewed/Revised: 2022 - 2024**

**These credits are valid for students 2 years after graduation from high school.**

Colleges	College Courses	College Programs	Articulated College Credit
Dakota County Technical College	HDTT 2107 Preventive Maintenance	*Heavy Duty Truck Technology – A.A.S. (78 cr.) *Heavy Duty Truck Technology – Diploma (70 cr.)	2 credits of 4 total credits

### **Course Description:**

This course covers the basic theory, operation, and understanding of the two- and four-stroke cycle diesel engine. The compression ignition engine principles and the engine's components will be covered, along with the disassembly, inspection, evaluation, reassembly, and proper torque techniques which are used on this type of engine. The different engine tools and their proper usage will also be covered.

### **Curriculum Learning Outcomes:**

100% of the curriculum learning outcomes will be covered in the high school course(s) by qualified CTE high school instructor(s).

To complete these requirements, students will:

1. Describe diesel engine operation.
2. Inspect and diagnose internal engine components and failures.
3. Disassemble and reassemble a four-stroke diesel engine.
4. Demonstrate professionalism and safe workplace practice

### **Course Assessments:**

Students must achieve a **B or better but not lower than 80%** on final test and a **cumulative** score of 80% on all assessments.