

Minnesota Articulated College Credit (ACC) Agreement

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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 courses. 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. In some cases, credit toward electives is also an option.

Agreement Name: Introduction to Engineering

Agreement Reviewed: Fall 2024

Next Review Date: Fall 2026

These credits are valid for two years upon high school graduation.

College Courses				
Class	Title	School	Credits	
ENGR 1020	Introduction to Engineering	Century College	3.0	of 4.0
ENGC 2075	Engineering Design Project	Hennepin Technical College	3.0	of 3.0

Course Description

Students research, design, develop and communicate design solutions. Teams use engineering software to prepare and evaluate designs and make extensive use of 3D printing to prepare models for presentation to authentic audiences.

The goal of the course is the application of the tools to address unique problems allowing the students to rapidly create and analyze proposed solutions. Siemens' software and hardware are tools frequently used by industry and understanding how these tools are used in problem solving is critical.

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).

Outline of Major Learning Outcomes

Upon completion of the course, the student will be able to:

- explain what engineering is and what engineers do
- use a variety of problem-solving strategies
- use CAD and other engineering software
- perform reverse engineering
- perform engineering design activities
- present results of engineering design activities

Students should work in teams to solve complex design problems through course assignments and projects.

Core College Competencies: Communication, Problem Solving, Interact

The course requires students to demonstrate competency in one or more of the Core College Competencies: Communicate effectively, Problem Solve, and interact in complex, dynamic environments.

Recommended Curriculum for Course

- **Siemens Engineering Design – Course 1**
Go to: <https://www.studica.com/course-1-siemens-engineering-design> for further information.

Assessments

1. Written and performance tests with an **80% or better**.
2. Successful completion of the course with an **80% or better**.