

# Minnesota

## Articulated College Credit Agreement

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

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### Articulated College Credit (ACC) 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 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.

**Agreement Name**            **Marine, Motorsport, & Outdoor Power Equipment Technology – Introduction to Electrical Systems**

**Agreement Reviewed/Revised**            **2024 - 2025**

**These credits are valid for students in grades 9-12 for 5 years from the completion of this course.**

College	College Course	College Programs	ACC
Hennepin Technical College	MMST 1115 Introduction to Electrical Systems	<ul style="list-style-type: none"><li>• Marine, Motorsport &amp; Outdoor Power Equipment (Diploma – 64 cr.)</li><li>• General Maintenance Technician (Occ. Cert. - 30 cr.)</li><li>• Motorcycle Technician (Occ. Cert. – 30 cr.)</li><li>• Outboard Technician (Occ. Cert. – 30 cr.)</li><li>• Power Equipment (Occ. Cert. – 30 cr.)</li></ul>	2 of 3 credits

### Course Description

The student will cover basic electrical theories and their application in various situations, battery maintenance and theory will also be a part of this course. This course will cover handling, storage, and disposal.

## Curriculum Learning Outcomes

To receive two (2) of three (3) college credits, students will master the following learning outcomes:

1. Differentiate between parallel and series circuits
2. Explain electromagnetism theory
3. Explain Ohm's law
4. Identify electrical components
5. Explain basic electrical theory
6. Diagnose electrical failures
7. Operate Volt/Ohm meter
8. Utilize electrical schematics

### Reference Textbook

Please go to [www.hennepintech.edu](http://www.hennepintech.edu) for the most recent text.

### Course Assessments

Students must obtain a **"B" or 80% grade or better** to earn college credit.

#### Recommended Comprehensive Assessments – College & High School

Comprehensive Assessment	Vendor	Further Information
Electronics I (550)	You Science	<a href="https://www.youscience.com/minnesota/files/standards-pdfs/(550)ks.pdf">https://www.youscience.com/minnesota/files/standards-pdfs/(550)ks.pdf</a>
Electronics Application/ Electronics Technology	SkillsUSA Career Essentials	<a href="http://www.careeressentials.org/wp-content/uploads/2017/07/ElectronicsApplicationsTechnologies_blueprint.pdf">http://www.careeressentials.org/wp-content/uploads/2017/07/ElectronicsApplicationsTechnologies_blueprint.pdf</a>
Vocational Education Resources – Power Portal	Briggs & Stratton	<a href="http://www.powersourcecanada.ca/BriggsStrattonResourceGuide.pdf">http://www.powersourcecanada.ca/BriggsStrattonResourceGuide.pdf</a>
Technician Certification - Electrical	Equipment & Engine Training Council (EETC)	<a href="https://www.eetc.org/page/TechCert">https://www.eetc.org/page/TechCert</a>
Online Certification (TBD)	Snap-On Industrial Certification Program	<a href="https://www.snapon.com/Industrial-Certification/Certifications/Multimeter">https://www.snapon.com/Industrial-Certification/Certifications/Multimeter</a>