

Minnesota

Articulated College Credit Agreement

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: Programming Overview
Agreement Reviewed/ Revised: 2023 -24

These credits are valid for students in grades 10-12 for 3 years from the completion of this course.

Colleges	College Courses	College Programs	Articulated College Credit
Hennepin Technical College	ITEC 1515 - Programming Overview	*Technical Elective in one of five Information Technology and Cyber Defense programs (Cyber Defense, IT Support, Information Technology, Network Administration, Programming and Data, or Workplace Administration)	3 technical elective credits of 3 total technical credits

Course Description:

This course is for a student planning to study networking, database or other Information Technology (IT) discipline. Emphasis will be placed on procedural programming, computational thinking and problem solving. Topics will include flowcharting, pseudocode, program design, data types including arrays, conditional boolean logic, program structures for branching and iteration, functions, and basic data structures.

Learning Outcomes:

100% of the following outcomes will be addressed in the course:

- ☐ Explain the relevance of programming skills for careers in IT Operations
- ☐ Apply computational thinking concepts such as abstraction, generalization and composition/decomposition
- ☐ Diagram program logic flow
- ☐ Solve problems using sequences, decisions and iteration in program flow
- ☐ Solve problems using arrays, and data structures such as lists and key-value pairs
- ☐ Build procedural programs using stateless functions
- ☐ Develop programs to solve real-world problems
- ☐ Create appropriate test cases and data
- ☐ Apply program debugging techniques and methods in program testing

Reference Text:

Please visit the www.hennepintech.edu bookstore for up-to-date text information.

Course Assessments:

Students must achieve an **80% or better** in the high school course to be eligible for articulated college credits.

Recommended Industry-Recognized Certification or Comprehensive Assessment – High School

Certification or Assessment	Vendor	Other Information
*AP Computer Science A	Advanced Placement	

Recommended Industry-Recognized Certification or Comprehensive Assessment – College

Certification or Assessment	Vendor	Other Information
To Be Determined	Advanced Placement	