

# Computer Science

## Program Type

Minor

Computer science at Hillsdale begins with an experiential introduction to the discipline through the study of formal language and the crafting of computations by writing programs. The goal is for students to become confident, creative programmers capable of using computation to explore their interests, perform useful tasks for themselves and their community, and, simply, to make beautiful things.

A serious student of the discipline will develop mind and test character through the rigors of translating natural language to formal, studying in ways both mathematical and philosophical the nature of this thing we call computation, and advancing in a craft capable of changing the world.

Courses covering the four core areas of computer science are offered. Students can analyze and design algorithms in CMP 310, Algorithms; work on the nature of language and translation in CMP 320 Models of Computation; see how computation arises from nature in CMP 330, Physical Computation; and learn to develop software in CMP 340, The Craft of Coding. Additionally, they can study the nature of mind itself in CMP 470, Artificial Intelligence; work deeply in the ways pervasive computing is entwined with so much of modern life in CMP 333, Embedded Systems; and gain historical perspective on the discipline as well as see what role it has to play in the tradition of philosophical thought in our History and Philosophy of Computer Science course.

A minor in computer science requires a minimum of 18 semester hours.

## Required Courses

Course Code	Title	Hours
CMP 101	Introduction to Computer Science	3
CMP 201	Data Structures	3
	Sub-Total Credits	6

Choose one course from:

Course Code	Title	Hours
CMP 310	Algorithms	3
CMP 320	Models of Computation	3
CMP 330	Physical Computation	3
CMP 340	The Craft of Coding	3
	Sub-Total Credits	3

Course Code	Title	Hours
	Any three additional 3-hour CMP elective or approved courses (MTH 335)	9
	Sub-Total Credits	9
Total Credits		18