

CSCI 121

COURSE INFORMATION

Course Number: CSCI 121

Title: Computer Science Fundamentals I

Instructor: Mark Hopkins (hopkinsm@reed.edu)

Lecture Schedule: MWF 1215-105pm (Section 1), MWF 135-225pm (Section 2), MWF 310-4pm (Section 3). All sections are online at <https://zoom.us/j/3344875668>.

Lab Schedule: Tu 315-435pm (Section 1), Tu 140-3pm (Section 2), Tu 850-1010am (Section 3). All sections are online at <https://zoom.us/j/3344875668>.

Office Hours: MWTh 4-6pm (all by appointment on Zoom).

Website: <http://markandrewhopkins.com/csci-121-fundamentals-of-computer-science-i>

Course Description

An introduction to computer science, covering topics including elementary algorithms and data structures, functional and procedural abstraction, data abstraction, object orientation, logic, and the digital representations of numbers. Emphasis is on mathematical problems and calculations and on recursive algorithms and data structures. The course includes a significant programming laboratory component where students will solve computational problems using a high-level language. The mechanisms for processing and executing programs will be surveyed.

Learning Outcomes

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

- write moderately complex programs using a high-level programming language
- write code using recursive functions, object-oriented programming, and standard elementary data structures
- analyze the running time of simple programs
- organize and document their code

Distribution Requirements

This course can be used towards your Group III, “Natural, Mathematical, and Psychological Science,” requirement. It accomplishes the following learning goal(s) for the group:

Use and evaluate quantitative data or modeling, or use logical/mathematical reasoning to evaluate, test or prove statements

This course **does not** satisfy the “primary data collection and analysis” requirement.