

Introduction to Programming

CSC 100 - Lyon College - Spring 2025

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Week 1: Introduction to Programming

- **Topics:**

1. What is programming?
2. What is a program?
3. What is debugging?
4. Formal vs. natural languages
5. The first program
6. Google cloud shell
7. Making and fixing mistakes
8. Writing your first program
9. Compiling your first program
10. Running your first program

- **Reading:** Chapter 1 (**Think C**)

- **Programming assignment:**

Do this on your personal computer (not at school):

1. Install Google Cloud Shell as an app in Google Chrome.
2. Create a "Hello, World!" program `hello.c`.
3. Compile and run the program using `gcc`.

- **Bonus Assignment:** Modify "Hello, World!", and replace "World" by your first name. Store your name as a string variable and print it.

What is programming?

- Do computer scientists think differently from other people?
- What's the "science" in computer science refer to?
- The most important computer science skill is problem-solving¹.

What is a programming language?

What is a program?

What is debugging?

The first program

Google cloud shell

Making and fixing mistakes

Writing your first program

Compiling your first program

Running your first program

¹What distinguishes a skill from, say, a talent, or an ability? A skill can be picked up from zero and improved with practice. A talent is (supposedly) inborn and can form a foundation for skill development. Ability is the capacity or power to perform a particular task, a skill, or an activity. Raw talent without skill means that you can do very little. Lots of skill without talent just means that you may have to work harder than someone with talent.