Programming with C I

Fangtian Zhong
CSCI 112

Gianforte School of Computing
Norm Asbjornson College of Engineering
E-mail: fangtian.zhong@montana.edu

2025.01.15

Info About Me

Fangtian Zhong

Education

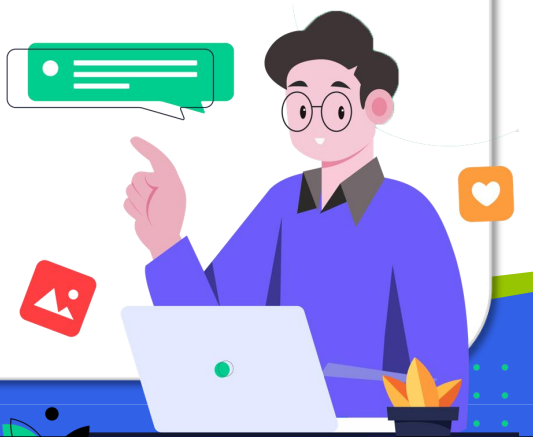
- Ph.D., George Washington University, 2021
- Postdoc., Pennsylvnia State University and University of Notre Dame

Research interests

- Software security
- Program analysis
- Machine learning for cybersecurity

More

- https://fangtian-zhong.github.io/



Course Information

- Website: https://fangtian-zhong.github.io/teaching/csci112-spring-2025/syllabus
- Time&Location: MWF 9:00am-9:50am, REID HALL108
- Optional Lab: F 10am-4pm, BARNARD HALL 254
- Office Hour: MWF 10:00am – 10:50am or by appointment
- Office: Barnard Hall 356
- Email: fangtian.zhong@montana.edu
- Course Slack: https://join.slack.com/t/csci112-spring-2025/shared_invite/zt-2xtse2b76-LIdmlBON~mnoULb14~3FsA

Text Books (Optional)

- The textbook is optional for this course, but is a good resource for anyone who is interested. Most classwork and lab programming assignments will come from the book, and lectures are based on the content in the book as well.

- Problem Solving and Program Design in C, by Jeri R. Hanley & Elliot B. Koffman, Eighth Edition.

- You can find free PDFs of the textbook online.

Prerequisite

CSCI 127 Joy and Beauty of Data: 4 Credits (3 Lec, 1 Lab)

Course Schedule

- The first 30 minutes of lecture will be spent learning new material, and the last 20 minutes may be spent on short quizzes. We will use Slack as the primary method of course communication, and all course information will be posted on the course website or on the Slack server; D2L will be used only for grading.

Linux Server

- We have a shared course server for you to develop, compile, and run your C programs on. Details for how to access the server can be found on the lecture 1 page.

SmartyCats

- There is SmartyCats tutoring for this course! Visit their website to find out more. You can also apply to be a SmartyCats tutor yourself for other CS courses you've taken, or for this one next semester.

Computer Science Success Center

- There are free tutors available in Barnard 259. More information here:

  https://www.cs.montana.edu/student-success-center.html.

Grade Breakdown

- You will be graded on the following:
- 27 classwork assignments (lowest three dropped): 20%
- 13 labs (lowest two dropped): 40%
- 12 in-class quizzes: 30%
- Attendance: 10%
- Your grade will be determined by your total score as follows:

  93+: A; 90+: A-; 87+: B+; 83+: B; 80+: B-; 77+: C+; 73+: C;

  70+: C-; 67+: D+; 63: D; 60: D-.

Late Penalties

- To run a course of this size we cannot accommodate individual requests for extensions on assignments; therefore, we have strict rules for when assignments are due, but have some leeway built in.
- We want you to succeed!
- You are responsible for any announcements about assignments made in class, on Slack, on D2L, and on the course website.

Late Penalties

- All assignments are due on their due date by the Anywhere on Earth (AoE) timezone, which is 6 hours behind Bozeman (Actually, it's only 5 hours behind during standard time, but we'll go with 6 hours behind at all times). This means that the real due date is 6am the following day. If you submit labs within 24 hours of the due date, you get 25% off of whatever score you earn. If you submit within two days of the due date you get 50% off. Otherwise, no points are possible. You can submit as many times as you would like; only your last submission will be graded.

- Classwork cannot be submitted late.

Missed quiz policy

- Note that quizzes are taken in-class. Any conflicts with a quiz must be discussed with me prior to missing the quiz. I follow University policy on makeups, which allows that serious illness or a serious family emergency are valid reasons requiring an accommodation.

Bonus

Catch errors in course materials

- If you find an error in any of the course materials (typo, incorrect statement, etc.), post in the #errors_capture channel on Slack. I will decide whether it's truly an error and not a duplicate. If it is really an error, you get a quarter of a point. Only the first person to post about an error gets the points. You can earn a max of 1 total point toward your 100 for the course (for four errors).

Course survey and evaluation

- If 75% or more of the class completes the mid-semester course survey, the whole class gets 1 bonus point. Same goes for the course evaluation.

Course outcomes

By the end of the course, students should be able to:

- Navigate a Linux operating system using the command line.
- Use vim to edit files.
- Use git to version control their work.
- Write code using C syntax.
- Build computer programs using the C language.
- Take advantage of major capabilities of the C language, including pointers, dynamic memory allocation and structs.
- Apply the power of pointers, structs and strings to C programs.
- Apply the programming knowledge you learned to solve basic real-world problem.

Academic Honesty

- Please review MSU's Code of Conduct, Policies, Regulations, & Reports. A couple of clarifications and additions:
  - Although you may discuss and design with others, the work you hand in (e.g., code, write-ups) must be entirely your own. (Applies to individual assignments only.)
  - Anything you submit that did not originate from you must be accompanied by attribution.
  - Also, please do not share solutions or detailed information about solutions (e.g., specific code, non-trivial command line sequences) with others.

THE END

Fangtian Zhong
CSCI 112

Gianforte School of Computing
Norm Asbjornson College of Engineering
E-mail: fangtian.zhong@montana.edu

2025.01.15