

SYLLABUS

CS 1313 010 — Programming for Non-majors in C — Fall 2023

Course website: <http://cs1313.ou.edu/>

LECTURES: Monday/Wednesday/Friday 9:30-10:20am, Sarkeys Energy Center (SEC) N202 ¹

FINAL EXAM: Tuesday December 12 8:00-10:00am, Sarkeys Energy Center (SEC) N202

INSTRUCTOR: Dr. Henry Neeman (hneeman@ou.edu, 405-325-5386, Engineering Lab 212²)

HELP SESSIONS WITH INSTRUCTOR: Mondays, 12:00noon-3:00pm, via Zoom, starting Mon Aug 28

ZOOM OR IN-PERSON ONE-ON-ONE VISITS (off schedule):

BY APPOINTMENT ONLY, MADE AT LEAST 24 HOURS IN ADVANCE

CONTACTING INSTRUCTOR & TAs: Please contact Dr. Neeman and **ALL** the TAs by **e-mail** unless it's an emergency; when contacting one, unless it's a personal matter, please contact **ALL** (instructor and all TAs). Please **DON'T** call the main offices of the School of Computer Science, nor the Gallogly College of Engineering, nor OU Information Technology **UNDER ANY CIRCUMSTANCES**.

TEACHING ASSISTANTS: Mohammad Basiri (ma.basiri@ou.edu)
Divya Pinnamaneni (divya.sai.pinnamaneni-1@ou.edu)

LAB SECTIONS: (held Fridays in Carson Engineering Center 205+206, starting Fri Aug 25) ³

Section 011:	Fridays	Carson 205+206	11:30am	–	12:20pm	Mohammad Basiri
Section 012:	Fridays	Carson 205+206	10:30am	–	11:20am	Divya Pinnamaneni
Section 013:	Fridays	Carson 205+206	8:30am	–	9:20am	Divya Pinnamaneni
Section 014:	Fridays	Carson 205+206	1:30pm	–	2:20pm	Mohammad Basiri

TA HELP SESSIONS

Tuesdays	9:00am	–	10:30am	via Zoom	starting Tue Aug 29	Mohammad Basiri
Tuesdays	2:00pm	–	3:30pm	via Zoom	starting Tue Aug 29	Divya Pinnamaneni
Wednesdays	8:00am	–	9:15am	via Zoom	on Programming Project due dates only	

CS 1313 CONTACT OPPORTUNITIES					
	MON	TUE	WED	THU	FRI
8:00 am			Help		
8:30 am			Session		Lab 013
9:00 am		Help	PP due only		CEC 205+206
9:30 am	Lecture	Session	Lecture		Lecture
10:00 am	SEC N202	Mohammad	SEC N202		SEC N202
10:30 am					Lab 012
11:00 am					CEC 205+206
11:30 am					Lab 011
12:00 noon					CEC 205+206
12:30 pm	Help				
1:00 pm	Session				
1:30 pm	Henry				
1:30 pm	Neeman				Lab 014
2:00 pm	via Zoom	Help			CEC 205+206
2:30 pm	noon-3:00pm	Session			
3:00 pm		Divya			
3:30 pm					
4:00 pm					
4:30 pm					

NOTE: CS1313 provides over 11 hours of scheduled time (lectures, lab sessions, help sessions) per week, except when otherwise announced.

¹SEC is on the SE corner of Jenkins & Boyd, the tall orange brick building.

²Engineering Lab is on the southeast corner of Asp Ave & Felgar St, a block south of Carson Engineering Center.

³Carson Engineering Center is on Boyd between Jenkins & Asp, the red brick and off-white concrete building.

Ambitious, Tentative List of Topics (not all topics necessarily covered, not necessarily in this order)

- Computer Organization
 - Hardware
 - Software
- C Introduction
- Introduction to Data & Expressions
 - Variables & Constants
 - Standard Input/Output
 - Numeric Data Types (`int` & `float`)
 - Arithmetic Expressions (`int` & `float`)
 - Symbolic Logic & Boolean Values
 - Boolean Data Type & Expressions
- Branching (`if`)
- Loops (`while` & `for`)
- Arrays
- Procedures (Functions)
 - C Standard Library Functions
 - User-Defined Functions
- Bit Representation of Integer Values
- Characters & Strings
- Pointers
- User-Defined Data Types (`struct`)
- File Input/Output
- Searching & Sorting

Prerequisite: MATH 1523 (Precalculus and Trigonometry) or equivalent, either before or concurrent with CS 1313
Note: CS 1313 is **NOT** for students majoring or minoring in CS or enrolled in CS option/emphasis programs.

To Be Purchased

- **Textbook (OPTIONAL — no readings or exercises from the book will be used):**
C: How to Program, 8th ed., Deitel & Deitel, Prentice Hall, 2015 (7th ed. is also fine)
Available at the University Bookstore
- **TuringsCraft CodeLab (MANDATORY):** <http://www.turingscraft.com/>
Cost: \$25 per student for the entire semester; the first 10 exercises are free.

Required Work (and percent of overall grade)

- **5-10 Programming Projects (45%)** (due every 1 to 3 weeks on Wednesdays — PP#1 due Wed Sep 6)
- **Short Programming Assignments (10%)** — CodeLab
— Due every Friday starting Fri Sep 1 **UNLESS OTHERWISE ANNOUNCED.**
— Each assignment has **MULTIPLE** numbered CodeLab exercises (**SORT BY DEADLINE**).
- **Weekly Lecture/Lab Attendance (10%)**, starting Mon Aug 21
- **Weekly Quizzes (10%)**: every Monday, 9:30-9:45am starting Mon Aug 28, except as announced (open book, open notes but not open neighbor **UNLESS OTHERWISE ANNOUNCED**). Quiz questions will be taken verbatim (**WORD-FOR-WORD**) from the homework assigned the previous week, **UNLESS OTHERWISE ANNOUNCED.**
- **2 In-Class Exams (15% for both)**: Wed Sep 27 & Wed Nov 1, 9:30-10:20am, SEC N202 (open book, open notes but not open neighbor **UNLESS OTHERWISE ANNOUNCED**)
- **Comprehensive Final Exam (10%)**: Tue Dec 12, 8:00-10:00am, SEC N202 (open book, open notes but not open neighbor **UNLESS OTHERWISE ANNOUNCED**)

Recommended Work:

- **Homeworks** will be assigned every week, starting Mon Aug 21, **UNLESS OTHERWISE ANNOUNCED.** Quiz questions will be taken **WORD-FOR-WORD** from homeworks, which **WON'T** be collected or graded.

Web-based Short Programming Assignments (CodeLab)

Instructions on how to register for and use CodeLab are posted on the CS1313 website. **EACH SHORT PROGRAMMING ASSIGNMENT WILL CONSIST OF MULTIPLE NUMBERED CODELAB EXERCISES.**

- Each numbered CodeLab exercise that is **COMPLETE, CORRECT AND ON TIME** will receive **FULL CREDIT**;
- each numbered CodeLab exercise that is **COMPLETE AND CORRECT BUT LATE** will receive **HALF CREDIT**;
- each numbered CodeLab exercise that is incomplete and/or is incorrect will receive **NO CREDIT**.

Lecture/Lab Attendance

- Each week, for full lecture/lab attendance credit, you'll need to earn 1 lecture/lab attendance point for that week.
- Each week, you may use any lecture, or the lab you are enrolled in, for your lecture/lab attendance point described below.
- Each week, you can get a maximum of 1 lecture/lab attendance point for that week.
- You can miss up to 3 weeks' worth of lecture/lab attendance points without penalty on your overall grade for the semester.
- There will be **NO BONUS** for attending more than the required number of lectures/labs, so if you attend more than required, the most you can get is 100% credit for lecture/lab attendance.
- Each week, you'll get 1 lecture/lab attendance point for being logged in to Zoom **BOTH**
 - (a) during the first 5 minutes of any lecture, or the lab session you are enrolled in, and then again
 - (b) during the final 5 minutes of the **SAME** lecture or lab session.
- Every time you log in to Zoom via voice phone call, instead of via the app or on a web browser, you **MUST** e-mail all of us (instructor and all TAs) the phone number you called in from, so we can give you credit.
- Lectures
 - To get credit for lecture attendance during a quiz, you **MUST** be logged in to Zoom during the first 5 minutes of that quiz/lecture (and of course during the final 5 minutes of that lecture). That is, participation in the quiz in and of itself **DOESN'T** guarantee credit for that lecture.
- Lab Sessions
 - At the **BEGINNING** of each lab session, during the first 5 minutes, you **MUST** be logged in to Zoom to record your attendance.
 - The lab instructor might then spend up to half of the session discussing an important topic, possibly including how to design a newly-assigned programming project.
 - After that, you will spend the remainder of the lab session working on CS1313 assignments (programming projects, short programming assignments, and/or homeworks).
 - At the **END** of the lab session, during the final 5 minutes, you **MUST** be logged in to Zoom **AGAIN** to record your attendance.
 - You will receive credit only for attending either a lecture or your **officially enrolled** lab session.
 - There will be no lectures, labs or help sessions held during official campus holidays (see below for listing).
 - If for some reason a lab session has to be cancelled, then other lab sessions during the same week will be optional. Attendance at optional lab sessions **WON'T** count toward your lecture/lab attendance score that week, even if some of that week's lab sessions have already been held before such an announcement is made.

Web Postings: All printable course materials, including lecture slides, homework assignments and programming project specifications, will be posted on the course website. **YOU are responsible for downloading and printing these materials.** You should check the course website **AT LEAST** twice a week, but daily is even better.

E-mail: Often, we need to alert the class to an important issue or problem. You should check your e-mail **AT LEAST** twice a week, but daily is even better. Course e-mails are sent to your official OU e-mail address; **YOU** are responsible for making sure that course e-mails are getting to you. **DON'T delete CS1313 e-mails, EVER.**

Grading

- A: $G \geq 90\%$; B: $80\% \leq G < 90\%$; C: $70\% \leq G < 80\%$; D: $60\% \leq G < 70\%$; F: $G < 60\%$
- We reserve the right to curve the grades as we see fit, but the curve won't be harsher than this.
- Your overall (non-curved) grade for the course will be calculated this way:

$$G = W_Q \frac{Q_1 + Q_2 + \dots + Q_{N_Q}}{Q_1^{\max} + Q_2^{\max} + \dots + Q_{N_Q}^{\max}} + W_P \frac{P_1 + P_2 + \dots + P_{N_P}}{P_1^{\max} + P_2^{\max} + \dots + P_{N_P}^{\max}} + \\ W_C \frac{C_1 + C_2 + \dots + C_{N_C}}{C_1^{\max} + C_2^{\max} + \dots + C_{N_C}^{\max}} + W_E \frac{E_1 + E_2 + \dots + E_{N_E}}{E_1^{\max} + E_2^{\max} + \dots + E_{N_E}^{\max}} + \\ W_L L + W_F \frac{F}{F^{\max}}$$

where

- G is your overall (non-curved) grade for the course, expressed as a percentage;
- Q refers to quizzes, P refers to programming projects, C refers to CodeLabs, E refers to in-class exams, F refers to the final exam, L refers to lecture/lab attendance (calculation of L shown below).
- W_A is the percentage weight of assignment type A (that is, $W_Q = 10$, $W_P = 45$, $W_C = 10$, $W_E = 15$, $W_F = 10$ and $W_L = 10$);
- A_j is your score on the j^{th} assignment of type A;
- A_j^{\max} is the maximum possible score on the j^{th} assignment of type A (excluding bonus points, if any);
- N_A is the number of assignments of type A;
- Your total lecture/lab attendance grade L will be calculated as:

$$L = \text{MIN} \left(\frac{L_1 + L_2 + \dots + L_{N_L}}{N_L - 3}, 1 \right)$$

where

- * N_L is the number of weeks during which lecture/lab attendance credit is available
- * L_j is your score for the j^{th} week
- * $\text{MIN}(x, y)$ is defined as the lesser of x or y

Course Policies

• Lateness penalties for programming projects

- No lateness deduction: if turned in no later than 10:20am on the due date (or at any earlier time)
- 20% deducted for every lecture session late (after 10:20am)
- Example: If a particular programming project is due by 10:20am Wed Sep 6, then ...
 - * If you turn it in by 10:20am Wed Sep 6, then there is no lateness penalty.
 - * If you turn it in 10:21am Wed Sep 6 through 10:20am Fri Sep 8, then you will lose 20% of its value right off the top (before other deductions are assessed by the graders).
 - * If you turn it in 10:21am Fri Sep 8 through 10:20am Mon Sep 11, then you will lose 40% of its value right off the top (before other deductions are assessed by the graders).
 - * If you turn it in 10:21am Mon Sep 11 through 10:20am Wed Sep 13, then you will lose 60% of its value right off the top (before other deductions are assessed by the graders).
 - * If you turn it in 10:21am Wed Sep 13 through 10:20am Fri Sep 15, then you will lose 80% of its value right off the top (before other deductions are assessed by the graders).
 - * If you turn it in 10:21am Fri Sep 15 or later, then you will get a score of zero.
- Lab sessions and help sessions **DON'T** count as lecture sessions for the purpose of determining lateness.
- If you submit an assignment early, then you may submit a new version of it up through the due date without penalty. The last version submitted by the due date will be graded; earlier versions will be discarded.
- No assignment submissions will be accepted after 10:20am Fri Dec 8 except by arrangement made in writing with the instructor by no later than 10:20am Wed Dec 6.

- **You MUST Take the Final Exam, Even If You Have Enough Points**

If you're doing really well in CS1313, then do you have to take the final exam, even if you'd have gotten an A in the course without the final exam?

Answer: **YES**, you **MUST** take the final exam, even if it won't change your grade.

If you choose not to take the final exam, **YOU RISK GETTING AN F IN THE COURSE, NO MATTER WHAT YOU WOULD OTHERWISE HAVE EARNED.**

Here's what the OU Faculty Handbook says:

"... When a final examination is given, the student must take the examination. ... A student absent from a scheduled final examination [for unavoidable legitimate reasons] ... shall be given a grade of Incomplete (I) if that student's work in that course has been satisfactory until the time of absence. ... In all other cases of absence from the scheduled final examination, a student may be given a grade of Failure (F)."

<https://apps.hr.ou.edu/FacultyHandbook/#4.7>

- **DON'T DELETE ANY of your CS1313 files or e-mails, EVER!!!**

- **Helping each other**

We encourage you to discuss homeworks, short programming assignments and programming projects with each other, to help each other with debugging, and to study for exams together. However, it is **NOT ACCEPTABLE** to develop programs together, nor to copy each other's work, in whole or in part, on **ANY ASSIGNMENT**. Writing programs, like writing prose, is highly idiosyncratic; it is virtually impossible for two people working independently to produce code that is more than superficially similar, on any but the most trivial assignments. So, we can generally spot shared code with little difficulty. We reserve the right to use automatic cheating detection software. Cheating can result in, and has resulted in, **severe penalties**, up to and including **EXPULSION** from the University (see below), so **DON'T EVEN THINK ABOUT IT!**

- **Help from us**

If you have questions or you're having trouble with the material, we urge you to ask questions during lectures and labs, to talk to us during help sessions, to send us e-mail, or to make an appointment (at least 24 hours in advance) to meet (via Zoom) at other times.

- **Using Outside Sources**

If, in completing an assignment, you use **ANY** sources (for example, books, online resources, classmates, friends, relatives, other professors) other than the exceptions that follow, then you **MUST** clearly reference them in the assignment. **Exceptions:** the course instructor and TAs, the course textbook, and the course resources available directly from the course website (that is, materials other than links to other sites). **NOTE:** Referencing an inappropriate source **ISN'T** a defense against accusations of academic misconduct (see below).

- **Working on programming projects**

DON'T wait until the last minute to start your programming projects. Developing software takes **a lot** of time, and might depend on the availability and reliability of systems that you have no control over. If the computers are down the night before a due date, **DON'T** count on that buying you extra debugging time – it certainly wouldn't in the real world.

- **Studying for exams**

DON'T wait until the last minute to start studying for exams. The best way to ensure success is to keep up with the course material, and to ask questions. Students who actively participate in lectures and attend lab sessions and help sessions typically learn and retain the material much better.

- **Registration in CS1313:** Fri Aug 25 is the last day to add CS1313 without permission of the instructor.

- **Withdrawal from CS1313**

- Through Fri Sep 1: No record of grade on dropped courses
- Tue Sep 5 – Fri Nov 10: Automatic grade of W for dropped course for undergraduate students
- Mon Nov 13 - Fri Dec 8: petition to the College Dean to drop the course for undergraduate students
- In accordance with OU policy: Starting Mon Nov 13, undergraduates will receive a withdrawal grade of W only with an overall passing grade (at least a D) on assignments graded to date; if the overall score on assignments graded to date is an F, then the withdrawal grade will be F.

- **Will this be on the exam?** Yes. Everything covered in lectures, readings, labs, homeworks, programming projects and short programming assignments (CodeLab) is fair game unless specifically stated otherwise.

Campus/Course Holidays (no lectures, no lab sessions, no help sessions)

- Mon Sep 4: Labor Day
- Thu Sep 14: Engineering Career Fair noon-5:00pm
<https://www.ou.edu/coe/student-life/events/engineering-fair>
- Fri Oct 6: OU-Texas Day
- Wed Nov 22 – Sun Nov 26: Thanksgiving Vacation

HOW TO DO WELL IN CS1313

- **The BEST way to improve your understanding in CS1313**

You'll notice, as the semester progresses, that the course lecture notes (available for downloading from the course website) contain many short example programs. Type them in, compile them and run them, and you'll understand the course material **much** better. This approach is especially valuable because **SEVERAL PROGRAMMING PROJECTS ARE LONGER, MORE COMPLICATED VERSIONS OF EXAMPLE PROGRAMS IN THE LECTURE NOTES.**

- When you come to lecture, lab or help sessions, and when you work on course assignments on your own, **ALWAYS ALWAYS ALWAYS** bring **ALL** CS1313 materials with you — current and previous assignment descriptions, lecture notes, syllabus, graded assignments, etc.
- When working on a CS1313 assignment, whether a homework, a programming project, a short programming assignment (CodeLab) or an exam, **ALWAYS ALWAYS ALWAYS** read **EVERY SINGLE WORD** of the assignment description. **EVERY WORD THAT DR. NEEMAN WRITES DOWN IS PURE GOLD.**
- When in doubt, **LOOK IT UP, DON'T MAKE IT UP.**

UNIVERSITY POLICIES

Academic Misconduct

All cases of academic misconduct will be reported to the Dean of the appropriate College for adjudication. For clarification of OU's policies on academic misconduct, see

<https://www.ou.edu/integrity/students>

It is **YOUR** responsibility to be familiar with these policies and to comply with them. Ignorance of these policies is **NOT** an excuse for violating them.

Cheating is strictly prohibited at the University of Oklahoma, because it devalues the degree you are working hard to get. As a member of the OU community, it is your responsibility to protect your educational investment by knowing and following the rules.

To be successful in this class, all work on all assignments, including programming projects, short programming assignments, quizzes and exams, must be yours and yours alone. You may not receive outside help in composing your programming solutions and/or quiz/exam responses. On quizzes and exams, you will never be permitted to use any study aid that isn't explicitly approved for that quiz or exam. (For example, you **ARE** allowed to use materials such as lecture slides, your own graded assignments, etc., unless explicitly stated otherwise.)

Should you see someone else engaging in this behavior, I encourage you to report it to myself, or directly to the Office of Academic Integrity Programs. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and/or an F in this course, so don't cheat – it's simply not worth it.

Reasonable Accommodation Policy

Any student in this course who has a disability that may prevent the full demonstration of his or her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Religious Observance

It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays.

– OU Norman Campus Faculty Handbook, 2017

<https://apps.hr.ou.edu/FacultyHandbook/>

Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact me as soon as possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. For commonly asked questions, please see:

<https://www.ou.edu/content/eoo/faqs/pregnancy-faqs.htm>

Title IX Resources

For any concerns regarding gender-based discrimination, sexual harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a variety of resources, including advocates on-call 24.7, counseling services, mutual no contact orders, scheduling adjustments and disciplinary sanctions against the perpetrator. Please contact the Institutional Equity Office 405-325-3546 (8-5, M-F) or OU Advocates 405-615-0013 (24.7) to learn more or to report an incident.

Mental Health Support Services

If you are experiencing any mental health issues that are impacting your academic performance, counseling is available at the University Counseling Center (UCC). The Center is located on the second floor of the Goddard Health Center, at 620 Elm Rm. 201, Norman, OK 73019. To schedule an appointment call (405) 325-2911. For more information, please visit the University Counseling Center:

<https://www.ou.edu/ucc>

Final Exam Preparation Period

Pre-finals week will be defined as the seven calendar days before the first day of finals. Faculty may cover new course material throughout this week. For specific provisions of the policy please refer to OU's Final Exam Preparation Period policy:

<https://apps.hr.ou.edu/FacultyHandbook#4.10>

Emergency Protocol

During an emergency, there are official university procedures that will maximize your safety:

<https://www.ou.edu/campussafety/emergency-management-department/procedures/>

Severe Weather: *If you receive an OU Alert to seek refuge or hear a tornado siren that signals severe weather:*

- (1) **LOOK** for severe weather refuge location maps located inside most OU buildings near the entrances.*
- (2) **SEEK** refuge inside a building. Do not leave one building to seek shelter in another building that you deem safer. If outside, get into the nearest building.*
- (3) **GO** to the building's severe weather refuge location. If you do not know where that is, go to the lowest level possible and seek refuge in an innermost room. Avoid outside doors and windows.*
- (4) **GET IN, GET DOWN, COVER UP.***
- (5) **WAIT** for official notice to resume normal activities.*

Additional Weather Safety Information is available through the Department of Campus Safety:

<https://www.ou.edu/campussafety/university-meteorologist/weather>

Severe Weather Refuge Areas

<http://www.ou.edu/content/dam/emergencypreparedness/docs/Building%20Severe%20Weather%20Refuge%20Areas.xlsx>

Severe Weather Preparedness Video

<https://vimeo.com/237922159>

Armed Subject/Campus Intruder

If you receive an OU Alert to shelter-in-place due to an active shooter or armed intruder situation or you hear what you perceive to be gunshots:

- 1. **Avoid:** If you believe you can get out of the area **WITHOUT** encountering the armed individual, move quickly towards the nearest building exit, move away from the building, and call 911.*
- 2. **Deny:** If you cannot flee, move to an area that can be locked or barricaded, turn off lights, silence devices, spread out, and formulate a plan of attack if the shooter enters the room.*
- 3. **Defend:** As a last resort fight to defend yourself.*

For more information, visit OU's Emergency Preparedness site:

<https://www.ou.edu/campussafety/emergency-management-department/procedures>

Shots Fired on Campus Procedure Video:

<https://www.youtube.com/watch?v=BsEOhGJIidI8>

Fire Alarm/General Emergency

If you receive an OU Alert that there is danger inside or near the building, or the fire alarm inside the building activates:

1. *LEAVE the building. Do not use the elevators.*
2. *KNOW at least two building exits.*
3. *ASSIST those that may need help.*
4. *PROCEED to the emergency assembly area.*
5. *ONCE safely outside, NOTIFY first responders of anyone that may still be inside building due to mobility issues.*
6. *WAIT for official notice before attempting to re-enter the building.*

OU Fire Safety on Campus:

<https://vimeo.com/125093634>