CS 1313 010 Spring 2021
Programming for Non-majors
University of Oklahoma

LECTURES: Monday/Wednesday/Friday 9:30-10:20am (Zoom)

FINAL EXAM: Monday May 10 8:00-10:00am

INSTRUCTOR
Justin Reynolds (justinreynolds@ou.edu, Carson Engineering Center 405)

HELP SESSIONS WITH INSTRUCTOR
Mondays 2:00pm - 4:00pm starting Mon Feb 1

ZOOM ONE-ON-ONE VISITS (off schedule)
BY APPOINTMENT ONLY, MADE AT LEAST 24 HOURS IN ADVANCE

CONTACTING THE INSTRUCTOR AND THE TAs
Please contact Justin 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).

TEACHING ASSISTANTS

Ashesh Gaur (ashesh.gaur@ou.edu)
Reza Gheibi (rezagheibi@ou.edu)
Zahra Sadri (zahra.sadri@ou.edu)

LAB SECTIONS
Fridays in Carson Engineering Center 205 + 206, (starts Fri Jan 29)

Section 011: Fridays, Carson 205 + 206, 12:30pm - 1:20pm, Zahra Sadri
Section 012: Fridays, Carson 205 + 206,   2:15pm - 3:05pm, Zahra Sadri
Section 013: Fridays, Carson 205 + 206,   5:15pm - 6:05pm, Reza Gheibi and Ashesh Gaur
Section 014: Fridays, Carson 205 + 206,   3:45pm - 4:35pm, Reza Gheibi

TA HELP SESSIONS

Mondays, 11:30am - 1:00pm, starts Mon Feb 1, Zahra Sadri
Tuesdays, 12:00pm - 1:30pm, starts Tue Feb 2, Reza Gheibi
Tuesdays, 3:00pm   - 4:30pm, starts Tue Feb 2, Ashesh Gaur

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

Required work (and percent of overall grade)

- 5-10 Programming Projects (50%)
  (due every 1 to 3 weeks on Wednesdays — PP#1 due Wed Feb 10)
- Weekly Quizzes (15%): every Monday 9:30-9:45am starting Mon Feb 8, except as announced (open book, open notes but not open neighbor unless otherwise announced). Quiz questions will be taken from the homework assigned the previous week, unless otherwise announced.
- 2 In-Class Exams (20% for both)
  - Wed March 3, 9:30-10:20am
    Open book & open notes but not open neighbor **UNLESS OTHERWISE ANNOUNCED**
  - Wed April 7, 9:30-10:20am
    Open book & open notes but not open neighbor **UNLESS OTHERWISE ANNOUNCED**
- Comprehensive Final Exam (15%): Mon May 10, 8:00-10:00am
  Open book & open notes but not open neighbor **UNLESS OTHERWISE ANNOUNCED**

Recommended work

- **Homeworks:** Homeworks will be assigned every week, starting Mon Feb 2, unless otherwise announced. Quiz questions will be taken from homeworks; homeworks **WON'T** be collected or graded.

Canvas Postings
All printable course materials, including lecture slides, homework assignments and programming project specifications, will be posted on Canvas. **YOU are responsible for downloading and printing these materials.** You should check the Canvas page **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

- Letter Grades
  - 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:

$$G = W_Q \times \frac{Q_1 + Q_2 + \ldots + Q_{NQ}}{Q_1^{max} + Q_2^{max} + \ldots + Q_{NQ}^{max}} +$$

$$W_P \times \frac{P_1 + P_2 + \ldots + P_{NP}}{P_1^{max} + P_2^{max} + \ldots + P_{NP}^{max}} +$$

$$W_E \times \frac{E_1 + E_2 + \ldots + E_{NE}}{E_1^{max} + E_2^{max} + \ldots + E_{NE}^{max}} +$$

$$W_F \times \frac{F}{F^{max}}$$

- where:
  - G is your overall (non-curved) grade for the course, expressed as a percentage;
  - Q refers to quizzes, P refers to programming projects, E refers to in-class exams, and F refers to the final exam;
  - W_A is the percentage weight of assignment type A
    (that is, $W_Q = 15$, $W_P = 50$, $W_E = 20$, $W_F = 15$);
  - A_j is your score on the jth assignment of type A;
  - A_j^{max} is the maximum possible score on the jth assignment of type A (excluding bonus points, if any);
- The following is **WRONG WRONG WRONG**:

$$Q_1 + Q_2 + \ldots + Q_{NQ} +$$
$$P_1 + P_2 + \ldots + P_{NP} +$$
$$E_1 + E_2 + \ldots + E_{NE} +$$
$$F$$

- That is, your overall percentage for the semester **CANNOT** be determined simply by adding up all of your points.

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 Feb 10, then ...
    - If you turn it in by 10:20am Wed Feb 10, then there is no lateness penalty.
    - If you turn it in 10:21am Wed Feb 10 through 10:20am Fri Feb 12, 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 Feb 12 through 10:20am Mon Feb 15, 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 Feb 15 through 10:20am Wed Feb 17, 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 Feb 17 through 10:20am Fri Feb 19, 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 Feb 19 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 May 7 except by arrangement made in writing with the instructor by no later than 10:20am Wed May 5.
- **You <u>MUST</u> 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?
  <u>Answer</u>: **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)."

- **<u>DON'T DELETE ANY of your CS313 files or e-mails, EVER!!!</u>**
- **Helping each other**
  - We encourage you to discuss homeworks 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 Canvas page (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 Jan 29 is the last day to add CS1313 without permission of the instructor.
- **Withdrawal from CS1313**
  - Through Fri Feb 5: no record of grade on dropped courses
  - Mon Feb 8 - Fri April 16: automatic grade of W for dropped course for undergraduate students
  - Mon April 19 - Fri May 7: petition to college dean to drop course(s) for undergraduate students
- **Will this be on the exam?**

o   Possibly. Everything covered in lectures, readings, labs, homeworks, and programming projects is fair game unless specifically stated otherwise.

Reasonable Accomodation Policy

Students requiring academic accommodation should contact the Accessibility and Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-4173. For more information, please visit http://www.ou.edu/drc/home.html

Any student in this course who has a disability that may prevent him or her from fully demonstrating 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.

Masking

As outlined by the University of Oklahoma's Chief COVID Officer, until further notice, employees, students, and visitors of the OU community will be mandated to wear masks (1) when they are inside University facilities and vehicles and (2) when they are outdoors on campus and social distancing of at least six feet is not possible. For the well-being of the entire university community it is important that everyone demonstrate the appropriate health and safety behaviors outlined in the University Mandatory Masking Policy

https://www.ou.edu/coronavirus/masking-policy

As this mandate includes all campus classrooms, please make sure you are wearing your mask while in class. If you do not have a mask or forgot yours, see the professor for available masks. If you have an exemption from the Mandatory Masking Policy, please see the professor to make accommodations before class begins. If and where possible, please make your professor aware of your exemption and/or accommodation prior to arriving in class.

If a student is unable or unwilling to wear a mask and has not made an accommodation request through the ADRC, they will be instructed to exit the classroom.

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. Please see http://www.ou.edu/eoo/faqs/pregnancy-faqs.html *for commonly asked questions.*

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 Sexual Misconduct Office 405-325-2215 (8-5, M-F) or OU Advocates 405-615-0013 (24.7) to learn more or to report an incident. https://www.ou.edu/eoo/faqs/

Religious Observance

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty.
OU Norman Campus Faculty Handbook

Copyright

Sessions of this course may be recorded or live-streamed. These recordings are the intellectual property of the individual faculty member and may not be shared or reproduced without the explicit, written consent of the faculty member. In addition, privacy rights of others such as students, guest lecturers, and providers of copyrighted material displayed in the recording may be of concern. Students may not share any course recordings with individuals not enrolled in the class, or upload them to any other online environment.

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 http://integrity.ou.edu/

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, 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.

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.

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.

Severe Weather Refuge Areas

https://www.ou.edu/campussafety/emergency-management-department/prepare/refuge-on-campus

Severe Weather Preparedness Video

https://vimeo.com/237922159

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 Canvas page) 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, or an exam, **ALWAYS ALWAYS ALWAYS** read **EVERY SINGLE WORD** of the assignment description.
- When in doubt, **LOOK IT UP, DON'T MAKE IT UP.**