

SYLLABUS

CS 1313 010 — Programming for Non-majors — Fall 2017

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

LECTURES: Monday/Wednesday/Friday 9:30-10:20am, Dale Hall (DH) 103 ¹

INSTRUCTOR: Dr. Henry Neeman

(hneeman@ou.edu, 405-325-5386, 3200 Marshall Ave suite 130²)

HELP SESSIONS WITH INSTRUCTOR: (held in Carson Engineering Center 205³)

Mondays 1:00-4:00pm starting Mon Aug 28

OFFICE VISITS (at Marshall): **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 Computer Science, Engineering, Information Technology or 1PP

UNDER ANY CIRCUMSTANCES.

TEACHING ASSISTANTS:

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LAB SECTIONS: attendance is **MANDATORY** (held Fridays in Carson Engineering Center 205, 206 and S-18)

Section 011: Fridays Carson 205 11:30am – 12:20pm TA to be announced

Section 012: Fridays Carson S-18 10:30am – 11:20am TA to be announced
(in the sub-basement)

Section 013: Fridays Carson 206 8:30am – 9:20am TA to be announced

Section 014: Fridays Carson 205 2:30pm – 3:20pm TA to be announced

Section 015: Fridays Carson 205 3:30pm – 4:20pm TA to be announced

TA HELP SESSIONS (location and times to be announced)

CS 1313 CONTACT OPPORTUNITIES					
	MON	TUE	WED	THU	FRI
8:00 am					
8:30 am					Lab 013*
9:00 am					CEC 206*
9:30 am	Lecture		Lecture		Lecture
10:00 am	DH 103		DH 103		DH 103
10:30 am					Lab 012*
11:00 am					CEC S-18*
11:30 am					Lab 011*
12:00 noon					CEC 205*
12:30 pm					
1:00 pm	Help				
1:30 pm	Session				
2:00 pm	Henry				
2:30 pm	Neeman				Lab 014*
3:00 pm	CEC				CEC 205*
3:30 pm	205				Lab 015*
4:00 pm					CEC 205*
4:30 pm					

* Lab sections are subject to change.

NOTE: CS1313 provides over 15 hours of scheduled time (lectures, lab sessions, help sessions) per week, except when otherwise announced.

¹Dale Hall is on Lindsey at Elm, just west of the South Oval.

²Marshall Ave is a small side street just off the north side of OK Hwy 9.

³Carson Engineering Center is on Boyd between Jenkins & Asp.

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
 - 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):**
Programming in C Rev, 3rd or 4th ed., Kochan, Pearson Technology Group, 2004/2014
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**).
- **MANDATORY** Weekly Lab Attendance (10%), weekly starting Fri Aug 25
- Weekly Quizzes (10%): every Monday, 9:30-9:45am in DH 103, starting Mon Aug 28, except as announced (open book, open notes but not open neighbor nor open device **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, Dale Hall 103 (open book, open notes but not open neighbor nor open device **UNLESS OTHERWISE ANNOUNCED**)
- Comprehensive Final Exam (10%): Mon Dec 11, 8:00-10:00am, Dale Hall 103 (open book, open notes but not open neighbor nor open device **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 **QUARTER CREDIT**;
- each numbered CodeLab exercise that is incomplete and/or is incorrect will receive **NO CREDIT**.

Lab Sessions

- **ATTENDANCE AT ALL LAB SESSIONS IS MANDATORY** starting Fri Aug 25, and will constitute 10% of your overall CS1313 grade. Failure to attend labs may cost as much as a full letter grade.
- At the **BEGINNING** of each lab session, the lab instructor will **TAKE ATTENDANCE**.
- The lab instructor may 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, the lab instructor will **TAKE ATTENDANCE AGAIN**.
- For each lab session, you will receive one of the following scores:
 - 2:** You were marked **present** at **both** the beginning and the end of the lab session.
 - 1:** You were marked **present** at **either** the beginning or end of the session, but **not both**.
 - 0:** You were marked **absent** at **both** the beginning and the end of the lab session.
- You may miss as many as **2** lab sessions without penalty. (Alternatively, you may arrive late or leave early from as many as 4 lab sessions, or you may mix and match.) **DON'T** squander them. **THERE ARE NO EXCUSED ABSENCES FROM LAB**; the two free absences should be sufficient to cover any **legitimate** situations that might arise.
- If you cannot participate in lab sessions at all for a **LEGITIMATE** reason (for example, religious observance as mentioned below), then you must provide **WRITTEN DOCUMENTATION** of your situation **BY 10:20AM WEDNESDAY AUGUST 30**. In such a case, your overall grade will be calculated without using a lab grade. Job or course schedules, planned personal trips, perceived lack of need and so on are **NOT** legitimate reasons (or, more accurately, are good reasons to use your free labs).
- You will receive credit only for attending your **officially scheduled** lab session.
- There will be no labs held during official campus holidays (see below for listing).
- Because of the OU-Texas holiday on Fri Oct 7 and Engineering High School Open House (date to be announced), there will be neither lectures nor lab sessions on those days.
- If for some reason a lab session has to be cancelled, then other lab sessions during the same week will be optional and attendance won't count toward your lab score, even if some of that week's lab sessions have already been held before such a declaration 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. The only printed materials that you should expect to receive in lecture are this syllabus, the quizzes and the exams.

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.

Campus/Course Holidays (no lectures, labs or help sessions)

- Mon Sep 4: Labor Day
- Fri Oct 13: OU-Texas Day
- Date to be announced: Engineering High School Open House
- Wed Nov 22 – Fri Nov 24: Thanksgiving Vacation

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 labs (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 lab grade L will be calculated as:

$$L = \text{MIN} \left(\frac{L_1 + L_2 + \dots + L_{N_L}}{2 \cdot (N_L - 2)}, 1 \right)$$

where

- * N_L is the number of lab sessions
- * L_j is your score for the j^{th} lab session
- * $\text{MIN}(x, y)$ 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 grade 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. **BE SURE THAT THE LAST VERSION SUBMITTED IS COMPLETE**; for example, it should include an appropriate cover page etc.
- 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>

- **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, to come talk to us during help sessions, to send us e-mail, or to make an appointment (at least 24 hours in advance) to meet 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 may 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.

- **Withdrawal from CS1313**

- Through Mon Sep 1: no grade recorded if dropped

College of Liberal Studies students have the first week of every 8-week session to drop courses with 100% refund.

- Tue Sep 5 – Fri Oct 27: automatic grade of W for dropped course for undergraduate students

- Mon Oct 30 - Fri Dec 8: undergraduate students **MUST** petition to the College Dean to drop the course **AND** instructor's signature and grade of W or F required (based on assignments graded to date)

- In accordance with OU policy: starting Mon Oct 30, 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.

Disability

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.

Religious Holidays

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 classwork that may fall on religious holidays. (OU Norman Campus Faculty Handbook, August 2012)

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 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.

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.

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.**