SYLLABUS
CS 1313 010 — Programming for Non-majors — Fall 2010
Course website: http://cs1313.ou.edu/
LECTURES: Monday/Wednesday/Friday 10:30-11:20am, Dale Hall (DH)122 ¹
INSTRUCTOR: Dr. Henry Neeman (hneeman@ou.edu, 325-5386, One Partners Place 1750A)
CS1313 HELP SESSIONS WITH INSTRUCTOR:
Mondays 1:00-3:00pm & Tuesdays 10:30am-12:00noon starting Mon Aug 30 & Tue Aug 31
Held in Carson Engineering Center 205 ²
OTHER HELP SESSIONS WITH INSTRUCTOR
Mondays 3:00-5:00pm (starts Mon Aug 30) & Thursdays 10:30am-12:30pm (starts Thu Sep 2), both in Carson 205.
These sessions are targeted at supercomputer users, NOT CS1313, so YOU WILL BE AT LOWER PRIORITY.
Also, these sessions are sometimes run by supercomputing center staff, so you may not be able to get CS1313 help.
OFFICE VISITS: BY APPOINTMENT ONLY, MADE AT LEAST 24 HOURS IN ADVANCE
CONTACTING INSTRUCTOR & TAs: Please contact Dr. Neeman and the TAs by e-mail unless it’s an emergency; when contacting one, unless it’s a personal matter, please contact ALL THREE (instructor and both TAs).
Please DON’T call the main offices of Computer Science, Information Technology or One Partners Place UNDER ANY CIRCUMSTANCES.
TEACHING ASSISTANTS: Abu Zafar Shahriar (shahriar@ou.edu)
Kim Houck (kim.houck@ou.edu)
LAB SECTIONS: attendance is MANDATORY (held Fridays in Carson 206 and S-18, in the sub-basement)
Section 011: Fridays Carson S-18 9:30am – 11:20am Shahriar (in the sub-basement)
Section 012: Fridays Carson 206 11:30 am – 12:20pm Shahriar
Section 013: Fridays Carson 206 12:30pm – 1:20pm Kim
Section 014: Fridays Carson 206 1:30pm – 2:20pm Kim
TA HELP SESSIONS (held in Devon Hall 115 ³)
• Abu Zafar Shahriar: Tuesdays 2:00-5:00pm starting Tue Aug 31
• Kim Houck: Tuesdays 8:45-10:15am starting Tue Aug 31 and Wednesdays 8:45-10:15am starting Wed Sep 1

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* CS 1313 students are at lower priority during Supercomputing Help Sessions; conducted by supercomputing center staff, in which case you may not be able to get CS1313 help at all.

¹Dale Hall is on Lindsey just west of the South Oval.
²Carson is on the southeast corner of Boyd & Asp.
³Devon is on the southwest corner of Boyd & Jenkins, across Jenkins from Sarkeys Energy Center and just east of Carson.
Ambitious, Tentative List of Topics

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

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

To Be Purchased

  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%)
- Short Programming Assignments (10%) — CodeLab (due every Friday starting Fri Sep 3 unless otherwise announced)
- MANDATORY Lab Attendance (10%) starting Fri Aug 27
- Weekly Quizzes (10%): every Monday, 10:30-10:45am starting Mon Aug 30, except as announced (open book, open notes but not open neighbor nor open laptop unless otherwise announced). Quiz questions will be taken word-for-word from the homework assigned the previous week, unless otherwise announced.
- 2 In-Class Exams (15% for both): Wed Sep 29 & Wed Nov 3, 10:30-11:20am, DH 122 (open book, open notes but not open neighbor nor open laptop unless otherwise announced)
- Comprehensive Final Exam (10%): Wed Dec 15, 8:00-10:00am, DH 122 (open book, open notes but not open neighbor nor open laptop unless otherwise announced)

Recommended work: Homeworks will be assigned every week, starting Mon Aug 23, unless otherwise announced. Quiz questions will be taken WORD-FOR-WORD from homeworks; homeworks 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 CODELAB EXERCISES.** Each CodeLab exercise that is COMPLETE, CORRECT AND ON TIME will receive FULL CREDIT; each CodeLab exercise that is COMPLETE AND CORRECT BUT LATE will receive QUARTER CREDIT; each CodeLab exercise that is incomplete and/or is incorrect will receive NO CREDIT.
Sessions

Grading
- A: G ≥ 90%; B: 80% ≤ G < 90%; C: 70% ≤ G < 80%; D: 60% ≤ 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 grade for the course will be calculated this way:

\[
G = W_Q \frac{\sum_{i=1}^{N_Q} Q_i}{\max{Q_i}} + W_P \frac{\sum_{i=1}^{N_P} P_i}{\max{P_i}} + W_S \frac{\sum_{i=1}^{N_S} S_i}{\max{S_i}} + W_E \frac{\sum_{i=1}^{N_E} E_i}{\max{E_i}} + W_F \frac{F}{\max{F}} + W_L L
\]

where
- G is your overall grade for the course;
- Q refers to quizzes, P refers to programming projects, S refers to short programming assignments, E refers to in-class exams, F refers to the final exam and L refers to labs (calculation of L shown below);
- \(W_A\) is the percentage weight of assignment type A (that is, \(W_Q = 10\), \(W_P = 45\), \(W_S = 10\), \(W_E = 15\), \(W_F = 10\), \(W_L = 10\));
- \(A_i\) is your score on the \(i^{th}\) assignment of type A;
- \(A_{i}^{\text{max}}\) is the maximum possible score on the \(i^{th}\) assignment of type A;
- \(N_A\) is the number of assignments of type A;
- \(\sum_{i=0}^{N_A} A_i = A_1 + A_2 + \cdots + A_{N_A}\)

Lab Sessions
- **ATTENDANCE AT ALL LAB SESSIONS IS MANDATORY** starting Fri Aug 27, 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, your TA will **TAKE ATTENDANCE**.
- Your TA will 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 homeworks).
- At the **END** of the lab session, your TA 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.
- Your total lab grade \(L\) will be calculated as:

\[
L = \min\left(\frac{\sum_{i=1}^{N_L} L_i}{2 \cdot (N_L - 2)}, 1\right)
\]

where
- \(N_L\) is the number of lab sessions
- \(L_i\) is your score for the \(i^{th}\) lab session
- \(\min(x, y)\) means the lesser of \(x\) or \(y\)
- 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 11:20AM WEDNESDAY SEPTEMBER 1**. In such a case, your overall grade will be calculated without using a lab grade. Job or course schedules, planned 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).
- If for some reason a lab session has to be cancelled, then other lab sessions during the same week will be optional and attendance will not be taken.
Course Policies

- **Lateness penalties for programming projects**
  - No lateness deduction: if turned in no later than 11:20am on the due date (or at any earlier time)
  - 20% deducted for every lecture session late (after 11:20am)
  - Example: If a programming project is due by 11:20am Wed Sep 8, then ...
    * If you turn it in by 11:20am Wed Sep 8, then there is no lateness penalty.
    * If you turn it in 11:21am Wed Sep 8 through 11:20am Fri Sep 10, 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 11:21am Fri Sep 10 through 11:20am Mon Sep 13, then you will lose 40% of its value right off the top.
    * If you turn it in 11:21am Mon Sep 13 through 11:20am Wed Sep 15, then you will lose 60% of its value right off the top.
    * If you turn it in 11:21am Wed Sep 15 through 11:20am Fri Sep 17, then you will lose 80% of its value right off the top.
    * If you turn it in after 11:20am Fri Sep 17, then you will get a grade of zero.

Notes:

- 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 11:20am Fri Dec 10 except by arrangement made by no later than 11:20am Wed Dec 8.

- **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, or to copy each other’s work, 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 27 is the last day to add CS1313.

• **Withdrawal from CS1313**
  - Through Fri Sep 3: no grade recorded if dropped
  - Mon Sep 7 – Fri Oct 1: automatic grade of W
  - Mon Oct 4 – Fri Dec 10: grade of W or F (based on assignments graded to date)
  - Mon Nov 1 - Fri Dec 10: must petition college dean to withdraw **AND** grade of W or F (based on assignments graded to date)
  - In accordance with OU policy: starting Mon Oct 4, you will receive a withdrawal grade of W only if you have an overall passing grade (at least a D) on assignments graded to date; if your grade to date is an F, then you will receive a withdrawal grade of 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.

**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.** The only printed materials that you should expect to receive in lecture are this syllabus, the questionnaire, 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. 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 6: Labor Day
• Fri Oct 1: OU-Texas Day
• Date to be announced: Engineering Open House
• Wed Nov 24 – Fri Nov 26: Thanksgiving Vacation

**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 the instructor personally as soon as possible so that accommodations necessary can be made to ensure full participation and to facilitate educational opportunities.*

**Religious Holidays**
*It is the policy of the University to excuse absences of students that result from religion 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, October 2008)

**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://www.ou.edu/provost/integrity/](http://www.ou.edu/provost/integrity/)

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 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 — 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.**