SYLLABUS

CS 1313 010 — Programming for Non-majors — Fall 2014

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

LECTURES: Monday/Wednesday/Friday 10:30-11:20am, Dale Hall (DH) 103

INSTRUCTOR: Dr. Henry Neeman

(hneeman@ou.edu, 405-325-5386, One Partners Place Suite 2600 @ 350 David L. Boren Blvd.)

HELP Sessions WITH INSTRUCTOR: Mondays 1:30-4:30pm starting Mon Aug 25

Held in Carson Engineering Center 205.

OFFICE VISITS (at One Partners Place): 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 (instructor and all TAs).

Please DON’T call the main offices of Computer Science, Engineering, Information Technology or One Partners Place UNDER ANY CIRCUMSTANCES.

TEACHING ASSISTANTS: Ben Carlson (bpcarlson@ou.edu)
Megan Robinson (megan.l.robinson@ou.edu)
Naveed Shah (naveed@ou.edu)

LAB SECTIONS: attendance is MANDATORY (held Fridays in Carson Engineering Center)

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<td>Carson S-18</td>
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TA HELP Sessions (held in Devon Hall 115)

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<td>Megan</td>
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<th>CS 1313 CONTACT OPPORTUNITIES</th>
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NOTE: CS1313 provides over 14 hours of scheduled time (lectures, lab sessions, help sessions) per week, except when otherwise announced.

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1Dale Hall is on Lindsey at Elm, just west of the South Oval.
2Carson Engineering Center is on the southeast corner of Boyd & Asp.
3Devon Energy Hall is on the southwest corner of Boyd & Jenkins, across Jenkins from Sarkeys Energy Center and just east of Carson.
Ambitious, Tentative List of Topics (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)
  - 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: CS 1313 is NOT for students majoring or minoring in CS or enrolled in CS option/emphasis programs.

To Be Purchased

  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 starting Wed Sep 3)
- Short Programming Assignments (10%) — CodeLab (due every Friday starting Fri Aug 29 UNLESS OTHERWISE ANNOUNCED) — each assignment has MULTIPLE numbered CodeLab exercises
- MANDATORY Lab Attendance (10%) starting Fri Aug 22
- Weekly Quizzes (10%): every Monday, 10:30-10:45am in Dale Hall 103, starting Mon Aug 25, 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 24 & Wed Oct 29, 10:30-11:20am, Dale Hall 103 (open book, open notes but not open neighbor nor open device UNLESS OTHERWISE ANNOUNCED)
- Comprehensive Final Exam (10%): Mon Dec 8, 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 18, 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.

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 (non-curved) grade for the course will be calculated this way:

\[
G = \frac{W_Q}{Q_{1\text{max}}} + \frac{Q_2 + \cdots + Q_{N_Q}}{Q_{N_Q\text{max}}} + \frac{W_P}{P_{1\text{max}}} + \frac{P_2 + \cdots + P_{N_P}}{P_{N_P\text{max}}} + \frac{W_C}{C_{1\text{max}}} + \frac{C_2 + \cdots + C_{N_C}}{C_{N_C\text{max}}} + \frac{W_E}{E_{1\text{max}}} + \frac{E_2 + \cdots + E_{N_E}}{E_{N_E\text{max}}} + \frac{W_L}{L_{\text{max}}} + \frac{W_F}{F_{\text{max}}}
\]

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, 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 and 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 (excluding bonus points, if any);
- N_A is the number of assignments of type A;
- Your total lab grade L will be calculated as:

\[
L = \min \left( \frac{L_1 + L_2 + \cdots + L_{N_L}}{2 \cdot (N_L - 2)}, 1 \right)
\]

where
- N_L is the number of lab sessions
- L_i is your score for the i_th lab session
- MIN(x, y) is defined as the lesser of x or y
Lab Sessions

- **ATTENDANCE AT ALL LAB SESSIONS IS MANDATORY** starting Fri Aug 22, 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 11:20AM WEDNESDAY AUGUST 27**. 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 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.

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 particular programming project is due by 11:20am Wed Sep 3, then ...  
    * If you turn it in by 11:20am Wed Sep 3, then there is no lateness penalty.
    * If you turn it in 11:21am Wed Sep 3 through 11:20am Fri Sep 5, 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 5 through 11:20am Mon Sep 8, 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 11:21am Mon Sep 8 through 11:20am Wed Sep 10, 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 11:21am Wed Sep 10 through 11:20am Fri Sep 12, 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 after 11:20am Fri Sep 12, 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 11:20am Fri Dec 5 except by arrangement made with the instructor by no later than 11:20am Wed Dec 3.
• **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, 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 22 is the last day to add CS1313.

• **Withdrawal from CS1313**
  – Through Fri Aug 29: no grade recorded if dropped
  – Tue Sep 2 – Fri Oct 24: automatic grade of W for undergraduate students
  – Mon Oct 27 - Fri Dec 5: undergraduate students 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 27, 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.

**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 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 1: Labor Day
- Fri Oct 10: OU-Texas Day
- Fri Oct 31: Engineering Open House
- Wed Nov 26 – Fri Nov 28: 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 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/content/eoo/pregnancyqaqs.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) or the Sexual Assault Response Team 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 — 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.**