SYLLABUS
CS 1313 010 — Programming for Non-majors — Spring 2016
Course website: http://cs1313.ou.edu/

LECTURES: Monday/Wednesday/Friday 9:30-10:20am, Physical Sciences (PHSC) 108

INSTRUCTOR: Dr. Henry Neeman
(hneeman@ou.edu, 405-325-5386, One Partners Place (1PP) Suite 2600 @ 350 David L. Boren Blvd.)

HELP SESSIONS WITH INSTRUCTOR: (held in Carson Engineering Center 205)
Mondays 12:00-2:50pm starting Mon Jan 25

OFFICE VISITS (at 1PP): 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 1PP UNDER ANY CIRCUMSTANCES.

TEACHING ASSISTANTS: Hristo Ivanov (hristo.a.ivanov-1@ou.edu)
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LAB SECTIONS: attendance is MANDATORY (held Fridays in Carson Engineering Center)
Section 011: Fridays Carson 205 12:00 – 12:50pm TA to be announced
Section 012: Fridays Carson 205 1:00 – 1:50pm TA to be announced
Section 013: Fridays Carson 205 2:00 – 2:50pm TA to be announced
Section 014: Fridays Carson 205 3:00 – 3:50pm TA to be announced

TA HELP SESSIONS (location and times to be announced)

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* Lab sections are subject to change.

NOTE: CS1313 provides over 12 hours of scheduled time (lectures, lab sessions, help sessions) per week, except when otherwise announced.

1PHSC is on Elm Ave between Boyd St and Brooks St, across from the parking deck.
2Carson Engineering Center is on the southeast corner of Boyd & Asp.
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
- 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

  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 Feb 3)
- Short Programming Assignments (10%) — CodeLab (due every Friday starting Fri Jan 29 UNLESS OTHERWISE ANNOUNCED) — Each assignment has MULTIPLE numbered CodeLab exercises — SORT BY DEADLINE.
- MANDATORY Weekly Lab Attendance (10%), weekly starting Fri Jan 22
- Weekly Quizzes (10%): every Monday, 9:30-9:45am in Physical Sciences 108 starting Mon Jan 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 Feb 24 & Wed Apr 6, 9:30-10:20am, Physical Sciences 108
  (open book, open notes but not open neighbor nor open device UNLESS OTHERWISE ANNOUNCED)
- Comprehensive Final Exam (10%): Wed May 11, 8:00-10:00am, Physical Sciences 108
  (open book, open notes but not open neighbor nor open device UNLESS OTHERWISE ANNOUNCED)

Recommended Work:

- Homeworks will be assigned every week, starting Wed Jan 20, 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: $G \geq 90\%$; 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:

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

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 $W_L = 10$);
- $A_j$ is your score on the $j^{\text{th}}$ assignment of type $A$;
- $A_{j_{\text{max}}}$ is the maximum possible score on the $j^{\text{th}}$ 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:

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

where
- $N_L$ is the number of lab sessions
- $L_j$ is your score for the $j^{\text{th}}$ lab session
- $\text{MIN}(x, y)$ is defined as the lesser of $x$ or $y$
Lab Sessions

- **ATTENDANCE AT ALL LAB SESSIONS IS MANDATORY** starting Fri Jan 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 10:20AM WEDNESDAY JANUARY 27**. 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).
- 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 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 3, then ...
    * If you turn it in by 10:20am Wed Feb 3, then there is no lateness penalty.
    * If you turn it in 10:21am Wed Feb 3 through 10:20am Fri Feb 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 10:21am Fri Feb 5 through 10:20am Mon Feb 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 10:21am Mon Feb 8 through 10:20am Wed Feb 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 10:21am Wed Feb 10 through 10:20am Fri Feb 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 10:20am Fri Feb 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 10:20am Fri May 6 except by arrangement made with the instructor by no later than 10:20am Wed May 4.
• **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 Jan 22 is the last day to add CS1313.

• **Withdrawal from CS1313**
  – Through Mon Feb 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 Feb 2 – Fri Apr 1: automatic grade of W for dropped course for undergraduate students
  – Mon Apr 4 - Fri May 6: 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 Apr 4, 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.** 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 Jan 18: Martin Luther King Jr. Day
- Sat March 12 – Sun March 20: Spring 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/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) 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.**