

SYLLABUS

CS 1313 010 — Programming for Non-majors — Fall 2007

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

LECTURES: Monday/Wednesday/Friday 10:30-11:20am, Dale Hall 122 ¹

INSTRUCTOR: Dr. Henry Neeman (hneeman@ou.edu, 325-5386, Stephenson Research & Technology Center)

CS1313 HELP SESSIONS WITH INSTRUCTOR:

Mondays 1:00-3:00pm & Tuesdays 9:00-10:30am starting Mon Aug 27 & Tue Aug 28

Held in Carson Engineering Center 205 ²

OTHER HELP SESSIONS WITH INSTRUCTOR

Mondays 3:00-5:00pm in Carson 205 (starts Mon Aug 27) & Thursdays 3:00-5:00pm in Carson **S-18** (starts Thu Aug 30)

These sessions are targeted at supercomputer users, **NOT CS1313**, so **YOU WILL BE AT LOWER PRIORITY.**

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, the Stephenson Research & Technology Center or the Center for Analysis & Prediction of Storms **UNDER ANY CIRCUMSTANCES.**

TEACHING ASSISTANTS: Cory Jones (cory.d.jones-1@ou.edu)

Tim Phillips (mockingbird@ou.edu)

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

Section 011:	Fridays	Carson S-18	9:30am – 10:20am	Tim
Section 012:	Fridays	Carson 206	11:30 am – 12:20pm	Tim
Section 013:	Fridays	Carson 206	12:30pm – 1:20pm	Cory
Section 014:	Fridays	Carson 206	1:30pm – 2:20pm	Cory

Carson **S-18** is in the sub-basement (Lab 011, Fridays 9:30-10:20am; Supercomputing help, Thursdays 3:00-5:00pm).

TA HELP SESSIONS (held in Engineering Laboratory 158 ³)

- Tim Phillips: Mondays 8:30-10:00am starting Mon Aug 27 and
Tuesdays 3:30-5:00pm starting Tue Aug 28
- Cory Jones: Wednesdays 9:00-10:30am starting Wed Aug 29 and
Thursdays 1:30-3:00pm starting Thu Aug 30

CS 1313 CONTACT OPPORTUNITIES					
	MON	TUE	WED	THU	FRI
8:00 am					
8:30 am	1313 Help				
9:00 am	Engr Lab 158	1313 Help	1313 Help		
9:30 am	Phillips	Carson 205	Engr Lab 158		Lab 011 Phillips
10:00 am		Neeman	Jones		Carson S-18
10:30 am	Lecture		Lecture		Lecture
11:00 am	Dale 122		Dale 122		Dale 122
11:30 am					Lab 012 Phillips
12:00 noon					Carson 206
12:30 pm					Lab 013 Jones
1:00 pm	1313				Carson 206
1:30 pm	Help			1313 Help	Lab 014 Jones
2:00 pm	Carson 205			Engr Lab 158	Carson 206
2:30 pm	Neeman			Jones	
3:00 pm	Supercomp*			Supercomp*	
3:30 pm	Help*	1313 Help		Help*	
4:00 pm	Carson 205*	Engr Lab 158		Carson S-18 *	
4:30 pm	Neeman*	Phillips		Neeman*	

* CS 1313 students are at lower priority during Supercomputing Help Sessions.

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

²Carson is on Boyd between Jenkins & Asp.

³Engineering Lab is on the SE corner of Asp & Felgar, across Asp from the Union.

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 (Elementary Functions) or equivalent

Note: This course is **NOT** for students majoring or minoring in CS or enrolled in CS option/emphasis programs.

To Be Purchased

- **Textbook (OPTIONAL):** *C: How to Program*, 5th ed., Deitel & Deitel, Prentice Hall, 2006
- **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%)
- Short Programming Assignments (10%) — CodeLab (due every Friday starting Fri Aug 31 unless otherwise announced)
- MANDATORY Lab Attendance (10%) starting Fri Aug 24
- Weekly Quizzes (10%): every Monday, 10:30-10:45am starting Mon Aug 27, except as announced (open book, open notes but not open neighbor 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 19 & Wed Oct 24, 10:30-11:20am, Dale Hall 122 (open book, open notes but not open neighbor unless otherwise announced)
- Comprehensive Final Exam (10%): Tue Dec 11, 8:00-10:00am, Dale Hall 122 (open book, open notes but not open neighbor unless otherwise announced)

Recommended work: Homeworks will be assigned every week, starting Mon Aug 20, 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**.

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 grade for the course will be calculated this way:

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

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^{\max} is the maximum possible score on the i^{th} assignment of type A;
- N_A is the number of assignments of type A;
- $\sum_{i=0}^{N_A} A_i = A_1 + A_2 + \dots + A_{N_A}$

Lab Sessions

- **ATTENDANCE AT ALL LAB SESSIONS IS MANDATORY** starting Fri Aug 24, 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:

$$L = \text{MIN} \left(\frac{\sum_{i=1}^{N_L} L_i}{2 \cdot (N_L - 2)}, 1 \right)$$

where

- N_L is the number of lab sessions
- L_i is your score for the i^{th} lab session
- $\text{MIN}(x, y)$ means the lesser of x or y
- If you cannot participate in lab sessions at all for a **LEGITIMATE** reason (e.g., religious observance as mentioned below), then you must provide **WRITTEN DOCUMENTATION** of your situation **BY 11:20AM WEDNESDAY AUGUST 29**. 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.
- You will receive credit only for attending your **officially scheduled** lab session.
- There will be no labs held during official campus holidays or Engineering Open House (see below for listing).
- Because of the OU-Texas holiday on Fri Oct 5 and Engineering Open House on Fri Nov 2, 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 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 Oct 10, then ...
 - * If you turn it in by 11:20am Wed Oct 10, then there is no lateness penalty.
 - * If you turn it in 11:21am Wed Oct 10 through 11:20am Fri Oct 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 11:21am Fri Oct 12 through 11:20am Mon Oct 15, then you will lose 40% of its value right off the top.
 - * If you turn it in 11:21am Mon Oct 15 through 11:20am Wed Oct 17, then you will lose 60% of its value right off the top.
 - * If you turn it in 11:21am Wed Oct 17 through 11:20am Fri Oct 19, then you will lose 80% of its value right off the top.
 - * If you turn it in after 11:20am Fri Oct 19, 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 7 except by arrangement made by no later than 11:20am Wed Dec 5.

• 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 (e.g., 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 (i.e., 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 24 is the last day to add CS1313.

- **Withdrawal from CS1313**

- Through Fri Aug 31: no grade recorded if dropped
- Tue Sep 4 – Fri Sep 28: automatic grade of W
- Mon Oct 1 – Fri Oct 26: grade of W or F (based on assignments graded to date)
- Mon Oct 29 - Fri Dec 7: must petition college dean to withdraw; grade of W or F (based on assignments graded to date)
- In accordance with OU policy: starting Mon Oct 1, 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 matter 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 3: Labor Day
- Fri Oct 5: OU-Texas Day
- Fri Nov 2: Engineering Open House
- Wed Nov 21 – Fri Nov 23: 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, August 2006)

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/>

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.**