Computer Science 1323

Section 1, Spring 2015

General Information

Class Time: 9:30-10:20 MWF

Class Location: 117 Carson Engineering Center

Prerequisites: Math 1523 or equivalent or concurrent enrollment.

This section is appropriate for students with some prior programming experience. Students without any prior programming experience should enroll in Section 10.

Instructor: Dr. Deborah A. Trytten (rhymes with mitten)



Office: Devon 234

Office Phone: 325-4299 (voice mail available, but email usually gets

a quicker response)

Personal URL: http://www.cs.ou.edu/~trytten

Email: dtrytten@ou.edu

Teleconference: Download at vsee.com, all class personnel can be reached at VSee ID cs1323@cs.ou.edu. My personal VSee ID is

dtrytten@ou.edu.

My office hours sometimes have to be changed during the semester. My current office hours are located on Janux, are in a spreadsheet on the shared dropbox folder and are always posted by my door. In addition to being in my office during office hours, I can also teleconference with students during office hours. While this may seem awkward at first, teleconferencing is a vital professional skill that you would be wise to develop now. Besides, it is convenient to not have to walk across campus for some quick help.

- Monday 3-4 p.m. in Wagner Hall 245 (University College Action Tutoring)
- Tuesday 4-5 p.m. in Devon Energy Hall 234
- Wednesday 11 a.m.-12 p.m. in Devon Energy Hall 234

Appointments for additional office hours are scheduled through email, preferably 24 hours in advance.

Teaching Assistants and Tutors

All teaching assistant office hours will be held in Devon 115. The TAs will also be available for help through teleconference software during their office hours. The VSee username for all staff related to this course is cs1323@cs.ou.edu.

Mamta Yadav: mamta.go4@ou.edu

Office hours: Monday 11:30-12:30, Tuesday 10:30-11:30, Wednesday 12-1

Patrick Curry: patrickwcurry@ou.edu

Office hours: Monday 12:30-1:30, Tuesday 1:30-2:30, Wednesday 3:30-4:30

Stephen Smart: Stephen.D.Smart-1@ou.edu

Office hours: Monday 11-12, Tuesday 3-4, Friday 11-12

University College Action Center Tutor: Katie Trivitt: available by appointment starting the third week of

class through this link. Make appointments through this link: http://tutor.ou.edu.

The College of Engineering tutoring schedule is here: http://www.ou.edu/coe/wssc/tutoring.html.

Useful Links:

I share a dropbox folder that contains the semester schedule, PowerPoints from lecture, code that we develop in class, and other useful documents here:

https://www.dropbox.com/sh/2f5or617opbr9tp/AABs-BJ3Lylbyp_EDPnayekza?dl=0

The complete day by day schedule of deadlines is here:

https://www.dropbox.com/s/frv41crl01wu4qj/Schedule%20Spring%202015.xlsx?dl=0

This course is run from Janux. The address for the course is janux.ou.edu. Login with your OU 4x4.

Required Materials:

Most of the learning materials are integrated into the Janux platform and are freely available to students. This includes one online textbook (not the main textbook for the class), many problem solving videos, assignments, a dropbox to submit work, and the official course gradebook.

You must purchase the following items:

- Zyante Introduction to Java (online textbook). Sign up at zyBooks.com. The zyBook code is: UniversityOklahomaCS1323Spring2015. Click Subscribe.
- TuringsCraft Java CodeLab package (http://www.turingscraft.com). Our section access code is:
 OKLA-17758-LMMT-23. The access code is purchased over the Internet directly from the company.
 If you do not have a credit or debit card available, call Turingscraft and they will turn on your
 account while you mail a check. Please use your official name (not a nickname) when you sign
 up for the account.

iClicker interactive classroom response unit. I tried using iClicker Go last semester (it works from your cell phone instead of from a dedicated transmitter). It did not work well on several occasions. I do not recommend iClicker Go, although I will permit you to use it if you insist. To get credit for your iClicker questions, you must register your remote here:
 https://www1.iclicker.com/register-clicker/. If you change remotes during the semester, remember to register again. People with unregistered remotes will not get credit for their in class work.

Working laptop computer with 2 hours of battery life, and wireless network access. We will use computers during class time every day. You are expected to bring your laptop to class.

Software Installation

Java JDK Version 8, Update 25. You will need to the Java Runtime Environment (JRE) installed on your computer. You may also wish to install the documentation on your computer if you have difficulties with internet connectivity.

We will use Eclipse as our integrated development environment (IDE) this semester. Eclipse can be downloaded from eclipse.org. Please use the Luna version 4.4.1 (or whatever version is the most current).

We will use VSee (vsee.com) as our teleconferencing software. This software allows screen sharing, which is critical to getting effective help programming.

Free Software Tutorial Products

We will use a number of software products to help you learn to program. You need to login to all products in order for grades to be recorded. When asked to enter your name, <u>please use the name that</u> appears in official University records, not a nick name.

Coding Bat http://codingbat.com/ requires you to create an account of your own. Please give your name in the account, use your student number, and not just your email. Share your responses with cs1323-1-sp15@cs.ou.edu so we can get your grades recorded properly. Also, remember to login when you work exercises—it isn't required and if you are not logged in then your grades will not be recorded.

Topical Coverage

Topics: Programs, Java, input and output, identifiers, variables, assignment statements, constants, memory diagrams, primitive data types, conditional statements, repetition, methods, parameters, arguments, return values, one dimensional arrays, objects, classes, and classes from the Java Application Programmers Interface (API) (including Arrays, ArrayList, Character, Collections, Double, Integer, Float, Scanner, String, StringBuffer, and StringBuilder).

In this class, students will increase their ability to meet the following ABET outcomes:

- Outcome B: Analyze a problem, and identify and define the computing requirements appropriate to its solution.
- Outcome C: Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs,
- Outcome K: Apply design and development principles in the construction of software systems of varying complexity.

Course Policies

Platform: This class will use the Janux platform. You are responsible for things posted on the site or sent by email with a 24 hour delay.

Class Email Alias: Urgent announcements will be sent through email. It is your responsibility to:

- Have your university supplied email account forwarded to the location where you read email.
- Make sure that your email address on the course home page is correct, and forwards email to
 the place where you read it. I'll send out a test message during the first week of class. If you do
 not receive this message, it is your responsibility to get the problem resolved.
- Have your email program set up so that replying to your email will work correctly. You can send email to yourself and reply to yourself to test this.

If you need assistance in accomplishing any of these tasks, contact 325-HELP. You are responsible for reading emails within 24 hours.

Examinations: There will be three midterm examinations and a final examination. Missing an examination without a previously approved excuse will result in a grade of zero for that examination. Makeup examinations are only available when required by University policy, in other words, almost never. Midterms are currently scheduled on Midterms are currently scheduled on Friday, February 13, Wednesday, March 25, and Wednesday April 15.

Final Examination: The final examination is on Monday, May 4 from 8-10 a.m. in our classroom. The final is comprehensive, as required by College of Engineering policy. No final examinations can be given early, except as required by University policy.

Clickers: I will use clickers in class every day to gauge student learning and track attendance and participation. Bringing someone else's clicker to class and entering answers for them is academic misconduct. I will do integrity checks during the semester to ensure that people are using only their own clickers.

Discussion Groups and Email: The discussion group on Janux should be the primary method of communication outside of class. This allows everyone in the class to benefit from the answer to your question, and provides students with more timely answers since other students may be able to answer your questions. Matters of only personal interest should be directed to email instead of to the newsgroup, *e.g.* informing me of an extended personal illness.

Laptop Computers: It is the responsibility of each student in this class to have a working laptop computer available for every class. If your computer requires repair during the semester, it is your responsibility to make arrangements to have another computer available and get the necessary software installed before the class time. A student without a fully usable laptop computer will be at a severe disadvantage in this class.

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 possible to discuss. Generally, modifications will be made where medically necessary and similar in scope to accommodations based on temporary disability. Please see https://www.ou.edu/content/eoo/faqs/pregnancy-faqs.html for answers to 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 advocate on call 24/7, counseling services, and mutual no contact orders, scheduling adjustments and 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: When you pass this class with a grade of C or better, I am certifying to the world that you are a competent Java programmer. I cannot make this certification without seeing work that you did on your own. Interactive programming tutors, laboratories, homework and examinations should be the work of that single individual, not their friends and not their tutor.

- 1. Do not show another student a copy of your work before the submission deadline.
- 2. Do not email your homework to another student, even if they promise they will not copy it.
- 3. The penalties for permitting your work to be copied are usually the same as the penalties for copying someone else's work because it is virtually impossible for me to distinguish the person who copied from the person who allowed his or her work to be copied. In cases where I can make the distinction, the person who copied the work will have a more severe sanction.

I sometimes use automated software to determine when student work is overly similar. The results of using this software are then evaluated manually by the instructor before charges are made.

Upon the first documented occurrence of academic misconduct, I will report the academic misconduct to the Campus Judicial Coordinator. If you are found to have committed academic misconduct by this process, the least penalty is usually failing the class, with suspension from college for a semester. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code. In the event that I elect to admonish the student, the appeals process is described here: http://integrity.ou.edu/summary_of_the_process.html.

Tutors: Before you hire a tutor, remember that the TAs and I are available and glad to help students learn course material. University College hires tutors for this class. The College of Engineering also hires tutors for this class. In addition to regularly scheduled office hours, I'm available in my office at many other times. If you email, I can often make an appointment. And I often answer questions through email.

In other words, use the resources that the University provides to help you with this course before spending a lot of money getting less effective help elsewhere.

Private tutors can be an excellent source of support for students who are having difficulty in the class, but only if the tutor is aware of the distinction between teaching you the material so that you ultimately can do your own work, and doing work for you. Tutors who do work for you are not only failing to help you learn, they are committing academic misconduct.

- If your tutor is methodically telling you what to write, he or she is abetting committing misconduct.
- If you tutor is emailing files containing partial or complete assignments to you, you will commit academic misconduct if you turn them in.

A more effective use of tutoring services is to do problems that are similar to the assigned work, instead of doing assigned work. For example, it would be fine to work unassigned problems from the textbook with a tutor. This requires significant discipline, both on the part of the tutor and on your part. Copying from a tutor is as unacceptable as copying from another student. If your tutor doesn't know how to teach properly, please ask them to call or visit me and I will provide training and guidance. If you are tutoring someone else in the class, you can be accused of academic misconduct if you allow this person to copy your work.

Incompletes: The grade of I is intended for the rare circumstance when a student who has been successful in a class has an unexpected event occur shortly before the end of the class. I generally will not consider giving a student a grade of I unless the following three conditions have been met.

- 1. It is within two weeks of the end of the semester.
- 2. The student has a grade of C or better in the class.
- 3. The reason that the student cannot complete the class is properly documented and compelling.

Accommodation of Disabilities: The University of Oklahoma and I are committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with me as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.

Classroom Conduct: Disruptions of class will not be permitted. Examples of disruptive behavior include:

- Allowing a cell phone or pager to repeatedly beep audibly.
- Playing music or computer games during class in such a way that they are visible or audible to other class members.
- Exhibiting erratic or irrational behavior.
- Behavior that distracts the class from the subject matter or discussion.
- Making physical or verbal threats to a faculty member, teaching assistant, or class member.
- Refusal to comply with faculty direction.

In the case of disruptive behavior, I may ask that you leave the classroom. If your behavior was especially egregious I may charge you with a violation of the Student Code of Responsibilities and Conduct.

Laboratory, Homework, Quizzes, Attendance

Late Work: I do not accept late work.

Computer Literacy Expectations: A list of specific expectations for computer literacy is posted on Janux. If you do not meet these expectations, it is your responsibility to remedy this situation immediately or drop this class.

Timing: The only way to learn programming is through practice. This course has many assignments to allow students to practice enough to become proficient and successful as programmers. The amount of time between when a homework assignment is given and when it is due will always be a week or less—often only two days. You should expect to devote some study time to this class every single day. A schedule is posted in the shared dropbox that records the current deadlines. This schedule changes frequently to meet student learning needs.

Laboratory Projects: Incomplete projects may be turned in for partial credit.

- Projects which do not compile will generally receive no credit.
- Beyond the first two projects, projects that do not execute will generally receive no credit.

Laboratory Project Strategy: The grades for projects are determined by how well the material presented meets the objectives stated on the project handout. If you have to turn in an incomplete project, the way to maximize the points received is to meet as many objectives as possible. One effective strategy is to meet objectives one at a time. If you save a copy of our current project to a separate directory when an objective is met, this can prevent many problems.

Laboratory Submission: The .java file(s) (not the .class files) should be exported from eclipse, uploaded on Janux. A single folder/file should be submitted.

Backup Copies of Projects: It is your responsibility to back up your files appropriately. No extensions to deadlines will be given as a result of lost files, unless there is a massive, network wide problem which affects the entire class. Do not rely on anyone else to back up your important files. Buy a jump drive and make backing up your work a routine part of computer usage. Dropbox or other cloud services are also useful for this. It is particularly important to save a backup copy of any homework or laboratory project that is submitted. This backup version should not be opened or edited after submission in case something goes wrong with the submission (like submitting the .class files instead of the .java files).

Homework Submission: Homework is due by 11:59 p.m. on the selected due date and submitted on Janux in a single, well formatted document that contains your name and has the problems in the original order in PDF format. Homework must be word processed. Photographs of hand written work are not acceptable.

Evaluation

Grade Corrections: My TAs and I spend a lot of time carefully grading student work. Please take the time to review our grading to maximize your learning. This is the way that feedback that we provide improves your conceptual understanding. After graded work been returned, there is a one week period of time when grades can be disputed. After this time, the grades are final even if they are found to be in error. If there is a dispute about the grading of an examination problem, you may stay after class the day the tests are returned to discuss it. If you cannot stay at this time, return the paper to me and stop by during my office hours. Once a test has been removed from the classroom after it has been returned, the grade is final and will not be changed, even if it is found to be in error.

Interactive Tools: In this class we use multiple interactive tutors to help you learn to program. Each interactive tutor has a different setup process to be navigated. This can be frustrating, both for students and for me. Please make sure that your account is setup up properly, that you use your official name that is in university records, and include your email address and student ID whenever possible (particularly if you have a common name). Also make sure that the first exercise from each tutor is correctly recorded so we can fix setup problems as soon as possible. I will generally excuse only one exercise from each interactive tool due to setup problems.

Grade Summary: Janux has a grade book that is used to store the raw data that is used to calculate your course grade. It is the responsibility of each student in this class to check their grades periodically and make sure that they are properly recorded. If an error is found, bring the grading document to me, and we will correct it.

Submission and Formatting Failures: Submitting files on Janux is a two step process. First the file is uploaded, then submitted. Each student will be forgiven for failing to hit submit once during the course of the semester. Each student will also be forgiven for submitting assignments in the wrong format only once (usually submitting a Word document instead of a PDF file).

Grading: There are 6 components to the course grade. They are weighted as follows.

| Item | % of Grade Option 1 | % of Grade Option 2 | Drop | Grader |
|-------------------------------|---------------------|---------------------|----------|------------|
| Turingscraft/Javabat/Zyante + | 15 | 15 | None | Automated |
| Clicker Questions * | 5 | 0 | 3 Lowest | Automated |
| Laboratory assignments | 20 | 20 | 1 lowest | TAs |
| Homework | 10 | 10 | 1 lowest | TAs |
| Examinations | 30 | 30 | 1 lowest | Instructor |
| Final Exam | 20 | 25 | None | Instructor |

⁺ Each Turingscraft exercise is worth one point. Each Javabat exercise is worth 2 points. Each section of Zyante questions is worth one point.

^{*} Clicker grading is based on the number of days when questions are assigned that you achieve at least 50% success on the clicker questions given in class. Each day one point is given for attendance to students who answer any iClicker question (whether correctly or not). The first week of classes will not be counted.

There are two options for grading—one that includes iClickers and one that does not. This section of the class is taken by some students who are experienced programmers who wish to brush up in Java. Option 2 is intended for these students, as it allows them to work independently on assignments instead of coming to class. I strongly encourage most students to plan to attend class every day and be graded according to Option 1. The final grade will be the higher of the grades calculated by either option.

The percentage of the grade that comes from interactive tutors, homework and laboratory activities is designed to be small to allow students to make mistakes and learn from them with only small penalties. However, completing these exercises is how most students develop the conceptual understanding that make it possible to do well on the homework, midterms and final.

The grading scale will be no higher than the following. It may be lower at the discretion of the instructor.

| Grade | Percentages |
|-------|-------------|
| Α | 90+ |
| В | 80-89 |
| С | 70-79 |
| D | 40-69 |
| F | Otherwise |

Borderline Grade Decisions: Although it would be preferable that all grades are cleanly decided, it is usually the case that a few final course grades are decided by only a few points. I have an algorithm for determining grades in these difficult cases. A grade is a borderline grade if it is within two points of the next higher grade. Therefore, grades like 69 and 78 are borderline grades, but grades like 81 and 92 are not. The grade on the final examination will be used to determine borderline grades. If the grade on the final is below the threshold for the higher grade, the lower grade will be given. If the grade on the final is above the threshold for the higher grade, the higher grade will be given.