Computer Science 2334

Section 10, Fall 2012

General Information

Class Time: Monday, Wednesday, Friday 1:30-2:20

Class Location: DEH 120 (Devon Energy Hall)

Laboratory Time: Thursday 8:30-10:20 (Section 11) or 12:30-2:20 (Section 12)

Laboratory Location: M207 SEC (Sarkey Energy Center)

Prerequisites: CS 1323 Introduction to Computer Programming and Mathematics 1823 Calculus and Analytic Geometry I, both with a grade of C or higher

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

Office location: Devon 234
Office Phone: 325-4299 (email is much better)
Class home page: http://learn.ou.edu
Personal URL: http://www.cs.ou.edu/~trytten
Email: dtrytten@ou.edu

My office hours sometimes have to be changed during the semester. The current office hours posted on the calendar to learn and are always posted by my door.

Monday: 3-4, Wednesday 11-12, and Thursday: 3-4

Appointments for additional office hours are scheduled through email.

Teaching Assistants:

Berk Zorlu
Office: Devon 115
Email: berk@ou.edu
Office Hours: Wednesday 10-11 a.m., Tuesday 12-2 p.m.

Bryan Hoke
Office: Devon 115
Email: bryan.hoke@ou.edu
Office Hours: Monday 12-1 p.m., Tuesday 9-10 a.m., Friday 3-4 p.m.
Required Materials:

- Working laptop computer with at least 2 hours of battery life and wireless network access. There will be times during class when it will be useful to look things up online, particularly using the Java API. You are expected to bring your laptop to lab every week and to examinations.
- Java JDK Version 7, Update 5. If you have an earlier version installed and everything is running well, there is no need to update it. You will need to install both the Software Development Kit (SDK) and the Java Runtime Environment (JRE). You may also wish to install the documentation on your computer if you do not always have internet connectivity.
- We will use Eclipse as our integrated development environment (IDE) this semester. If you install the Java SDK before Eclipse, the installation process usually goes smoothly.

ABET Outcomes

This course enables students to develop:

B: An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.

C: An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.

E: An understanding of professional, ethical, legal, security, and social issues and responsibilities.

K: An ability to apply design and development principles in the construction of software systems of varying complexity.

2.0 Topical Coverage

Catalog description: Application of software engineering principles with examples from central areas of computer science. Use of abstract data types such as stacks, queues, lists, trees, file processing. Introduction to ethics in computer science, including philosophical ethics theories. Discussion of intellectual property rights and privacy. A program design tool will be used.

I expect to cover approximately these chapters in Liang during the course of the semester: 8 (review), 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22.

In the ethics book (Baase) we will cover Chapter 1.4, 2, and 4.
3.0 Course Policies

Class Attendance: Class attendance is important because we will discuss concepts and examples that are not in the textbook. You are responsible for everything that is announced in class.

Laboratory Attendance: Most laboratories will be dedicated to working individually on assignments and projects. If you have not already finished work on all assigned homework or projects, you should plan to attend the laboratory.

Class Home Page: This class will use Desire2Learn software for our home page. The URL for the home page is http://learn.ou.edu. Login with your 4+4 (first four letters of your last name followed by the last four digits of your student number), using your standard OU password. If you have difficulty logging in, call 325-HELP. This software provides a number of useful features, including a list of assignments and announcements, an electronic mailing list, newsgroups, and grade book. I update this web site several times a week. You should check the site daily. When I update the site, I will post an announcement telling you what has been added and where it is located. You are responsible for things posted on the site 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.

Twitter: I have a twitter account that I will use to inform students of document postings and other class related news. @Deborah Trytten #oucs2334. These postings will also be placed on the home page of learn, so you won’t miss anything if you prefer not to use Twitter.

Examinations: There will be two midterm examinations and a final examination. The examinations will be outside of class time, at a time selected by the class usually through a doodle poll. If you cannot attend the examination, it is possible to take the examination before (but not after) the selected time. Missing an examination without a previously approved excuse or prior arrangement will result in a grade of zero for that examination. If an examination is missed for a verifiable, documented, and approved reason the percentage of the grade coming from the final examination will be increased to 35 or 40%, depending on whether the first or second examination was missed. Makeup examinations are only available when required by University policy, in other words, almost never. Examinations may require the use of a laptop computer.
**Final Examination:** The final examination is on Thursday, December 13, from 8:00 a.m. to 10:00 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.

**Discussion Groups and Email:** The discussion group on the course home page 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 personal interest should be directed to email instead of to the newsgroup, *e.g.* informing me of an extended personal illness. Posting guidelines for the newsgroup are linked on the home page.

**Laptop Computers:** It is the responsibility of each student in this class to have a working laptop computer with ample battery, wireless internet connectivity, and installed software available for every class and laboratory session. If your computer requires repair during the semester, it is your responsibility to make arrangements to have another computer available and perform any necessary software installations before class. A student without a fully usable laptop computer will be at a severe disadvantage in this class.

**Academic Misconduct:** All work submitted for an individual grade, such as homework and projects should be the work of that single individual, not their friends or their tutor.

1. Do not show another student a copy of your homework or projects before the submission deadline.
2. Do not email your project to another student, even if they promise they will not copy it.
3. The penalties for permitting your work to be copied are the same as the penalties for copying someone else’s work.
4. Make sure that your computer account is properly protected. Use a good password, and do not give your friends access to your account or your computer system.
5. Do not leave thumb drives around a laboratory where others might access them.

Upon the first documented occurrence of collaborative work, I will report the academic misconduct to the Campus Judicial Coordinator. The procedure to be followed is documented in the University of Oklahoma Academic Misconduct Code. In the unlikely event that I elect to admonish the student, the appeals process is described here: http://integrity.ou.edu/summary_of_the_process.html.

**Sources for Approved Tutors:** Before you hire a tutor, remember that the teaching assistants and I am frequently available and glad to help students learn course material. 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. There also is a CS tutor who works with the College of Engineering. The times and locations for tutoring are available here: http://www.ou.edu/content/coe/wssc/audience/mep_diversity/tutoring.html.

**Other Tutors:** Tutors also 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 and abetting academic misconduct.

- If your tutor is methodically telling you what to write, he or she is committing academic misconduct and you will commit academic misconduct if you turn them in.
- If you tutor is emailing files containing partial or complete assignments to you he or she is committing academic misconduct and 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 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 is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor 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.

Cancelled Classes: Classes are cancelled on the following days for the following reasons.

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Reason</th>
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</thead>
<tbody>
<tr>
<td>Monday</td>
<td>September 3</td>
<td>Labor Day</td>
</tr>
<tr>
<td>Friday</td>
<td>October 12</td>
<td>OU/Texas Holiday</td>
</tr>
<tr>
<td>Friday</td>
<td>November 2</td>
<td>Engineering Open House</td>
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<tr>
<td>Wednesday-Friday</td>
<td>November 21-23</td>
<td>Thanksgiving</td>
</tr>
</tbody>
</table>

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

4.0 Projects, Homework, Quizzes, and Attendance

Language: We will be using the Java programming language (Java 6, Update 25).

Sharing Resources: Office hours and laboratory sessions are usually busy a day or two before a project or homework assignment is due. While the TA and I will make reasonable efforts to meet the needs of as many students as possible, it is often impossible to fully meet the needs of all students during this busy period of time. For example, if there are ten students in my office during a given office hour, each student could expect to receive about six minutes of help. This limited amount of help may not be sufficient. Students who wait until the last minute to get help on projects or homework may have to hire a tutor to get extended help on projects.

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

- Projects which do not compile will generally receive no credit.
- Projects that do not execute will generally receive no credit.

Project Learning Objectives: The number of points assigned to an objective on a project is indicative of how important meeting that objective is to your success in the class—not necessarily the amount of work it will take to meet that objective. It is often possible to get a substantial number of points on a project without completing it.

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.

Project Submission: Projects are due by 11:59 p.m. on the selected due date by uploading the project files to the digital dropbox on the course home page. Late projects are not accepted. Do not wait for the last minute to submit a project. Also, remember that submission is a two step process. First you load the file, then you submit it.

Backup Copies of Projects: It is your responsibility to backup their 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 backup your important files. Buy a jump drive (or other media) and make backing up your work a routine part of computer usage. Always back up your
files at the end of the laboratory session. It is particularly important to save a backup copy of any project that is submitted. This backup version should not be opened or edited after submission in case something goes wrong with the submission system.

**Homework Strategy:** Some homework problems will ask you to write code. I recommend that you write the code on paper first, then compile, execute and test it using eclipse. If you do not write the code on paper, you may find that you have difficulty writing code without eclipse as a backup. For example, many students rely on cutting and pasting code from the textbook, previous projects, and online sources to create programs. These students may not be able to write programs during examinations, which could lead to failure in the class.

**Homework Submission:** Homework is submitted by the beginning of class either on paper, or via the digital dropbox. I encourage you to word process your homework assignments, both for your sake and for the sake of the teaching assistant.

**Get Out of Jail Free (GOOJF):** You may submit one homework assignment, or project up to 48 hours late without penalty. This exception is designed to handle all of the legitimate reasons why work cannot be submitted in a timely fashion, including broken alarm clocks, non-functioning cars, broken computers, personal illness, sick children, and work related travel. Choose wisely. Submitting the early assignments late is generally not wise. If you choose not to use your GOOJF during the semester, you will get 20 extra points on projects (and these will not be capped at 100%).

### 5.0 Evaluation

**Grade Corrections:** The TAs and I spend a lot of time carefully grading student work. Please take the time to review our grading to maximize your learning. After homework and projects have 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.

**Desire2Learn Grade Summary:** Desire2Learn 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 on Desire2Learn after each project or homework is returned. If an error is found, bring the grading document to me, and I will correct it. The grade book does not understand the nuances of how grades are actually calculated in this class. It therefore may show things like percentages and total points that may be incorrect. The correct formulas for calculating grades are given in this document.

**Midterm Examinations:** In order to allow students ample time to complete the two midterm examinations. Examinations will be given at a time that is scheduled by the class as a whole. Students who cannot attend the examination at this time will be given the examination before the remainder of
the class. These additional hours of instruction will compensate for the days that I must leave Norman to attend to other obligations during the semester.

**Grading:** There are 5 components to the course grade. They are weighted as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>25</td>
</tr>
<tr>
<td>Projects</td>
<td>20</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>15</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>20</td>
</tr>
<tr>
<td>Final Examination</td>
<td>20</td>
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</tbody>
</table>

The percentage of the grade that comes from homework and projects confuses some students. These elements are more lightly weighted to allow students to make mistakes and learn from them with only small penalties. Completing these exercises is how most students meet the learning objectives that make it possible to do well on the midterms and final, which are weighted more heavily. Failure to do the homework and projects almost universally results in failure of the course.

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90+</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>Otherwise</td>
</tr>
</tbody>
</table>

**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.