Computer Science 1323

Section 10, Spring 2012

General Information

Class Time: 10:30-11:20 MWF

Class Location: SEC A235

Laboratory Time: Tuesdays 8:30-10:20 (Section 11), 10:30-12:20 (Section 12), 12:30-2:20 (Section 13)

Laboratory Location: AH 355

Prerequisites: Math 1523 or equivalent. No prior programming experience is assumed, although prior programming experience can be helpful. Students with little computer experience may want to consider taking CS 1313 before or instead of this class, although this is not required.

Advanced Standing: Students with significant programming experience in Java or C++ are strongly encouraged to take the advanced standing examination by calling 325-1208 and scheduling time to take the examination.

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)
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 are located on the course web site and are always posted by my door.

Monday: 3-4
Tuesday: 4-5
Wednesday: 9-10
Appointments for additional office hours are scheduled through email.
**Teaching Assistants**
All teaching assistant office hours will be held in Devon 115.

Amlan Chatterjee: [amlan@ou.edu](mailto:amlan@ou.edu)
Office hours: Wednesday 3-4, Friday 9-10

Chandrika Satyavolu: [csatyavolu@ou.edu](mailto:csatyavolu@ou.edu)
Office hours: Monday 2-3, Thursday 11-12

**Required Materials:**


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

Java JDK Version 7, Update 2. 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 have difficulties with internet connectivity. We will use the documentation more later in the semester.

We will use Eclipse as our integrated development environment (IDE) this semester.

TuringsCraft Java CodeLab package (http://turingscraft.com). This is purchased over the Internet, The Section Access Code is: 33595. When asked to enter your name, please use the name that appears in official University records, not a nick name.

**2.0 Topical Coverage**
I expect to cover approximately Chapter 1-9 in Liang during the course of the semester.

Topics: Computers, 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 Character, 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.

### 3.0 Course Policies

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

**Laboratory Attendance**: Most laboratories will be dedicated to working individually on projects, homework, or Turingscraft assignments.

**Class Home Page**: This class will use Desire2Learn software for our home page. The URL for the home page is [http://learn.ou.edu](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.

**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. Missing an examination without a previously approved excuse 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.
Final Examination: The final examination is on Monday, May 7 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.

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 and wireless internet connectivity 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. 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, projects, and Turingscraft 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 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. If you choose to do your work on your computer, 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 printouts, or 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.

Tutors: Before you hire a tutor, remember that the TAs and I are available and glad to help students learn course material. The College of Engineering also hires tutors. These tutors are in the second floor of the Engineering Practice Facility (west side) and in the Engineering Library in Felgar hall. 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.

Private 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 abetting academic misconduct.

- If your tutor is methodically telling you what to write, he or she is abetting academic 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.

**Incomplete**: 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 and for the following reasons.

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday-Friday</td>
<td>March 17-25</td>
<td>Spring Break</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.
- 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 and may charge you with a violation of the Student Code of Responsibilities and Conduct.

4.0 Projects, Homework, Quizzes, Attendance, and TuringsCraft

Language: We will be using the Java programming language (Java 7, Update 2).

Computer Literacy Expectations: A list of specific expectations for computer literacy is posted on the course home page. 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 (6 projects, 6 homework, many TuringsCraft) to allow students to practice enough to become proficient and successful as programmers. This means that students can expect to have one or two assignments due every week. The amount of time between when an assignment is given and when it is due will typically be a week or less. You should expect to devote some study time to this class every single day.

Sharing Resources: Office hours and laboratory sessions can become very busy immediately before a project or homework assignment is due. While 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.
• Beyond the first two projects, projects that do not execute will generally receive no credit.

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. I use dropbox.com to backup my critical files and
highly recommend it.

**Homework Submission:** Homework is submitted by the beginning of class either on paper, or via the
digital dropbox. Homework should generally be word processed, with exceptions if diagrams need to be
drawn.

**TuringsCraft:** In addition to written homework, this semester we will be using a system to help students
learn Java called TuringsCraft. TuringsCraft exercises are interactive, and automatically and
instantaneously graded. They also provide help and guidance for students who do not answer the
questions correctly. They will be assigned frequently and should be completed by the deadline, which
will often be the next day or two.

**5.0 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. 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 we will correct it. The grade book does not understand 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.
**Grading:** There are 5 components to the course grade. They are weighted as follows.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Turingscraft</td>
<td>5</td>
</tr>
<tr>
<td>Homework</td>
<td>20</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>

In order to pass this class with a C, as defined by College of Engineering rules, you must have a passing grade on the projects, and on the final examination. This assures that all students finishing the class are successful in programming computers, and have the overall topical knowledge that is required for professional practice of programming at the introductory level and for success in the next course.

The percentage of the grade that comes from homework, projects, and Turingscraft confuses some students. These elements are 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, Turingscraft, and projects usually 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 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.