University of Utah
School of Computing

CS 1021 Syllabus August 25, 2009

Course Title: Introduction to Java

Website: http://www.eng.utah.edu/~cs1021

Lectures
- Tuesday, 2:00-3:20 PM, WEB 104
- Thursday, 2:00-3:20 PM, WEB 104

Labs
- Section 2: Friday, 2:00 PM - 2:50 PM, MEB 3225
  (Attendance required)

Instructor: Peter Jensen

E-Mail: teach-cs1021@list.eng.utah.edu

Office Hours:
- Wednesdays 1:00 PM - 2:00 PM, MEB 3148
- Tuesdays and Thursdays after 3:30, see the website for details.

Teaching Assistants: Raymond Henriksen, Rebecaa Koslover, Alex Malecker,
  Tyler Robinson, and Hongchang Peng

Textbook
- Java 6 Illuminated
  by Julie Anderson and Herve’ Franceschi

Final exam
- Thursday, October 29, 2:00 - 3:20 PM in WEB 104 (during class)

Grading
- Programming assignments - 50%
- Labs / quiz - 25%
- Final exam - 25%
Course Overview

Here is the catalog description for CS 1021:

An introduction to essential programming concepts using Java. Laboratory practice emphasizes object-oriented techniques and web-based application design.

With the growth of web-based and phone-based applications, object-oriented techniques, and architecture-independent programming, there has been an increasing interest in the Java programming language. Java allows programmers to rapidly develop applications using pre-built objects. It also provides a uniform approach to programming for many different types of computers. The purpose of this course is to introduce you to programming concepts using Java.

This course is intended for students with no prior programming experience. You will learn how to write small object-oriented programs that explore the Java language. The core programming concepts that are covered (objects, variables, conditional expressions, loops, methods, and classes) are common to all contemporary programming languages and will prepare students for further study in languages such as advanced Java, C#, and C++.

The scope of this course will be to cover the basics of writing and executing small Java applications. In particular, you will learn:

- The statements and syntax that make up a Java program
- How to use variables, expressions, conditional and looping statements, and other Java programming constructs
- How to use design principles and object-oriented programming
- How to use the Eclipse development environment
- Program execution and debugging skills

If you have not programmed before or if you are unfamiliar with PC’s or Unix, the first few weeks will be the most challenging. Make sure that you attend the first few labs, or you will be lost later in the course! Learning how the system works can be frustrating if you do not have someone to ask questions. We will try to minimize this frustration by being available during lab hours, after class, via e-mail contact, and during office hours to answer questions. Please feel free to ask questions during these times. There are many problems that you will run across which you can either struggle with for hours, or ask a question and be done with it in a moment. Keep in mind, however, that trial and error is necessary in programming, as is testing out your own ideas and learning Java by experimentation. The lectures will give some background material but it is in the labs where you will begin to understand how to program.

This class meets concurrently with CS 1410. You will be exposed to a broad range of computer science topics along with Java, but your grade will be based solely on your Java programming ability. Lectures and labs end on Friday, October 30, and the last assignment will be due the following week.

Pragmatics

Book

The textbook for this course is *Java 6 Illuminated* by Anderson and Franceschi. This is an excellent textbook that introduces students to programming and problem solving using Java. Most of the programming assignments will come directly from the textbook. There will be weekly reading assignments that you should read concurrently with the lectures.
Lectures

We will meet for lecture on Tuesdays and Thursdays for 80 minutes in WEB 104. In lecture I will make use of both the chalkboard and of a projected laptop computer. Most of the concepts will be presented on the chalkboard, but I will use the laptop to create programming examples. After lecture I will post programming examples on the class website.

Coursework

Each week you will be assigned one programming assignment and you must attend the required labs. All assignments can be accessed through the links on the course schedule, located at:

http://www.eng.utah.edu/~cs1021/schedule.html

Please make sure to review the course schedule regularly. It will be updated with assignments and solutions as the semester progresses.

On Wednesdays I will post a programming assignment for the following week. Programming assignments are due on Wednesdays, but may be turned in late for only one point of penalty for one extra day. No submissions will be accepted after Thursday of each week. Assignments must be submitted via electronic handin. Electronic handin instructions are posted on the class website.

You will also meet with a TA in small a laboratory section for one hour on Fridays in MEB 3225. This lab is equipped with a computer for each student. In each section, your TA will guide you through a set of interactive programming exercises and check-off your lab work. The laboratory sections are absolutely essential to your success in the course, and all students are expected to attend.

The course staff (instructor and teaching assistants) will hold regular consulting hours each week during which we will be available to help you with questions or problems. The consulting schedule may vary and the current schedule will be available on the class website.

Computer resources

All of the programming that you do in this course will be in Java. Although you are free to use any Java compiler that is compatible with Sun’s Java 2 JDK Version 6, we will make extensive use of a Java programming environment called Eclipse. Eclipse will be available in the College of Engineering’s CADE Lab in WEB 224/226 and in the School of Computing’s Software Teaching Lab in MEB 3225. Directions on downloading and using Eclipse are posted on the class website. You may install Java and Eclipse on your home computer if you wish.

Students will need to get accounts for the CADE lab (WEB 226). For those students who do not already have an account, you will need to get an account before the first lab session. If you have any problems accessing your account, or if you register late and need an account, please see the CADE help staff in WEB 226.

Exams and grading

There will be only one exam, the final exam, on Thursday, October 29 in class. The exam will cover material given in lectures and assignments. Makeup examinations will only be given under exceptional circumstances, and may contain different questions than the regular exam. Please let me know of scheduling conflicts before the exams. Makeup exams will be proctored by the University of Utah Testing Center, and they charge a small fee.

The final grade will be calculated from exams, programming assignments, and laboratory exercises. A’s will be given to students within 90% of the best student, B's within 80%, C’s within 70% etc.
The breakdown is as follows: the final exam is 25%, the lab exercises are 25%, and the programming assignments are 50% of your grade. (Total points for assignments, labs, and the final will be scaled according to these percentages.)

Students who disastrously fail the exam may fail the class, regardless of their lab and assignment scores. I will, however, consult with these students before assigning a grade.

Sometimes a mistake is made in tabulating a grade. Should you discover what you think is an error in grading, please request a regrade. Regrade forms are available on the course website. Fill out the regrade form and resubmit your assignment if you believe a mistake was made during grading.

## Getting Help and Information

The class website is:

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http://www.eng.utah.edu/~cs1021
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It will contain a variety of information resources, including course staff consulting hours and e-mail addresses; links to course handouts and problem set solutions; links to examples from lecture, and links pertaining to the textbook, Java, and programming environments.

You may find material related to the companion class at:

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http://www.eng.utah.edu/~cs1410
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(CS 1021 students are only responsible for completing CS 1021 requirements, not the CS 1410 requirements.)

The course staff email address is:

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teach-cs1021@list.eng.utah.edu
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This is the correct place to send any questions you may have. Any email you send to this list will go to all of the teaching staff (the instructor and the TAs). Please only send messages to me or your TA individually if privacy is required.

Announcements specific to a programming assignment will be added to the top of the problem description. For this reason, I recommend not printing out the programming assignments, otherwise you will never see the clarifications. Please view the programming assignment descriptions directly from the web.

Please read your email regularly. Important announcements will be emailed to the class mailing list. If for some reason you do not receive the class emails, please make sure our emails are not being filtered by your Internet service provider. Also, make sure your official University of Utah email address is correct.

We encourage you to seek us out whenever you need help, advice, or encouragement. We will always be available during our regular office hours, and you can make appointments for other times. Simple questions can often be answered by phone or email.

## Cooperation vs. Cheating

Working with others on assignments is a good way to learn the material and I encourage it. However, there are limits to the degree of cooperation that I will permit.
When working on assignments, you must work only with others whose understanding of the material is approximately equal to yours. In this situation, working together to find a good approach for solving a problem is cooperation; listening while someone dictates a solution is cheating. You must limit collaboration to a high-level discussion of solution strategies, and stop short of actually writing down a group answer. Anything that you hand in, whether it is a written problem or a computer program, must be written from your own thoughts and in your own words. If you base your solution on any other written solution, you are cheating.

When taking an exam, you must work completely independently of everyone else. Any collaboration here, of course, is cheating.

*We do not distinguish between cheaters who copy others’ work and cheaters who allow their work to be copied.*

If you cheat in any amount, you will be caught, and you will be given an E in the course and referred to the University Student Behavior Committee. If you have any questions about what constitutes cheating, please ask. Remember, if you base your solution on any other written or group solution, you are cheating.
First Homework and Lab Instructions

CS 1021 - Week #1

This first homework and lab are each worth ten points. Follow the instructions below. Complete steps 1..4 (including the homework) prior to your first lab session.

1. Get a CADE account login ID and password. (These accounts are different from your other University accounts.)
   • If you already have a CADE account, use your existing login ID and password. If you have forgotten your password, go to the CADE help desk in WEB 226 to have your password reset.
   • If you do not have a CADE account, go to the CADE help desk in WEB 226 to get an account.
   • Keep all of your passwords written down for the first few weeks. If you change your password, keep both your original and changed passwords. Password problems are the chief cause of trouble in lab sessions.

2. Log in to one of the CADE machines and start a web browser (such as FireFox). Load the class website:
   [http://www.eng.utah.edu/~cs1021](http://www.eng.utah.edu/~cs1021)

3. Complete the written homework (attached to these instructions) and then log out. Make sure to take the written homework to your first lab session.

4. Test your login on both Windows machines and Linux machines. The Windows machines are in WEB 210, the Linux machines are in 226. Make sure to remember both passwords, and keep your original ones around even if you change them. Go back to the help desk if you have any troubles.

5. Go to your lab session on Friday, August 28 in MEB 3225. Log in to any machine except machine #16. (Machine #16 is reserved for the TA.) As you log in, make sure the “Log in to” box is set to “USERS”.
   If you have any problems logging in, please ask your TA for help.

6. Open a web browser, and again load the class website.

7. Load the course schedule and find this week’s lab assignment.

8. Follow the instructions given in the on-line lab assignment.

9. If you did not already fill out the survey, fill it out and give it to the TA.

10. Ask the TA to check your work. This lab is worth ten points, so don’t leave until the TA has checked your work. The TA will sign your written homework to give you credit for the lab.
    If you have any problems with the lab, please ask the TA for help.
CS 1021 Survey

Name (not required):

Are you familiar with using a word processor?

Are you familiar with surfing the web? If so, what browser do you use?

Do you have (and use) an email account?

Have you used UNIX or Linux before?

Do you have any programming experience? If so, what languages do you know? (No experience is needed to take this course.)

Why are you taking this course?

What do you hope to learn during this course?

If you have any other comments, please list them here.