

# University of Utah School of Computing

CS 4540

Handout 1

January 13, 2009

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## Course Staff and Schedule

Instructor Joe Zachary  
Office: 3190a MEB  
Phone: 581-7079  
Email: zachary@cs.utah.edu  
Office Hours: MW 1:30-3:00 p.m.

Lectures TH 3:40–5:00, 2230 WEB

Teaching Assistant Carson Jones (carsonj@cs.utah.edu)

## Course Overview

In the first part of this class you will learn how to write web-based client/server applications using Java technology. This will include HTML, JavaScript, and AJAX scripts in the client browser; Java servlets and JavaServer pages running under Tomcat on the server side; and SQL data sources accessed via JDBC on the back end. We will use Eclipse with appropriate plugins as the programming environment.

In the second part of the class you will learn how to write the same types of applications in Microsoft's ASP.NET using C#. We will use Visual Studio as the programming environment.

Along the way you will encounter some of the principles of distributed computing. These issues will include distributed programming models, network protocols, multi-threaded programming, synchronization, authentication, and security.

The required text is the second edition of *Core Servlets and JavaServer Pages (Volume 1)* by Marty Hall and Larry Brown. This book is available on the web for free at <http://pdf.coreservlets.com>. Later in the semester we will make use of other web-based reading.

## Pragmatics

We will meet for lecture on Tuesdays and Thursdays from 3:40–5:00 p.m. for 80 minutes. In lecture, I will make use of both the chalkboard and of a projected laptop computer. I will use the laptop to create programming examples, and after lecture I will post those lectures on the class web page.

On most Fridays until the final project goes out, I will post an assignment for the following week. It will consist of a programming problem (generally a web application) that will be due on Friday (seven days later) at 11:59 p.m. by electronic handin.

Shortly after you spring break, you will begin working in a small group on a final project of your choosing. The project will be due on Wednesday, May 6. However, it must be complete enough to demonstrate before the due date. We will have project demonstrations during the last two regularly scheduled class periods (April 21 and 28) and during the scheduled final exam period (May 5, 3:30-5:30 p.m.).

There will be a link on the class web page to the lecture schedule. This schedule will show the lecture topic and reading assignment for upcoming lectures. Following each lecture, I will update this schedule to reflect what was actually covered in lecture that day. By the end of the semester, the schedule will contain a record of everything we covered.

The course staff (instructor and teaching assistant) will hold regular consulting hours each week, during which we will be available to help you with questions or problems.

All of the programming that you do in this course will be in Java and C#. If you are not already a proficient Java and C# programmer, you should plan to put in a lot of effort early in the semester to bring yourself up to speed.

There will be no exams in this course. Your grade will be based entirely on the problem sets (75%) and your project (25%).

## Getting Help and Information

The class web page is <http://www.eng.utah.edu/~cs4540/>. It will contain a variety of information resources, including course staff consulting hours and e-mail addresses, a course FAQ, links to course handouts and problem set solutions, links to examples from lecture, and links pertaining to the software used in the course.

There is a class ([cs4540@list.eng.utah.edu](mailto:cs4540@list.eng.utah.edu)) and a staff ([teach-cs4540@list.eng.utah.edu](mailto:teach-cs4540@list.eng.utah.edu)) mailing list.

- We will use the class mailing list to send urgent messages, such as corrections to problem sets or changes in due dates, to everyone in the class. You will not be able to send mail to this list yourself.
- Each member of the course staff will receive a copy of each message that is sent to the staff mailing list. We will reply directly to each question, and we will post the answers to frequently asked questions to the class web page.

The class mailing list is synchronized to the class enrollment, so you do not need to subscribe to it. You do, however, need to monitor the e-mail address that the University uses to send official communications to you, since that is the e-mail address we will be using. By default that address is your UMail address, but you can set it by visiting <http://www.utah.edu>, clicking on the “Campus Information System” link, logging in, and clicking on the “Personal Bio/Demo Information” link.

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 e-mail. Our consulting schedule will be posted on the class web page as soon as it is finalized.

## Cooperation vs. Cheating

Working with others on assignments is a good way to learn the material and we encourage it. However, there are limits to the degree of cooperation that we will permit.

When working on individual programming 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 programming 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 in your own words. If you base your solution on any other written solution, you are cheating.

The same general guidelines apply to the final project, except that you may collaborate without restrictions with your fellow group members. All members of a group are expected to contribute substantially to that group's project.

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

If you cheat, 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.

## Students With Disabilities

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

## Very Tentative Schedule

Date	Event	PS
1/13	Introduction; web application architectures; basic servlets/JSPs	
1/15	Eclipse/Tomcat/plugins; writing and deploying servlets	
1/20	Handling form data in servlets; Java Beans	
1/22	Request headers; response codes; response headers	PS 1 out (due 1/23)
1/27	Cookies and session tracking	
1/29	Introduction to relational databases	PS 2 out (due 2/6)
2/3	Configuring and managing an SQL database	
2/5	Using SQL databases from servlets	PS 3 out (due 2/13)
2/10	Introduction to JSPs	
2/12	JSP techniques	PS 4 out (due 2/20)
2/17	JSP expression language	
2/19	JSTL tags	PS 5 out (due 2/27)
2/24	Security and authentication	
2/26	Servlet minutia	PS 6 out (due 3/6)
3/3	Introduction to AJAX	
3/5	AJAX tag libraries	PS 7 out (due 3/13)
3/10	ASP.NET	
3/12	ASP.NET	PS 8 out (due 3/27)
3/17	<b>Spring Break</b>	
3/19	<b>Spring Break</b>	
3/24	ASP.NET	
3/26	ASP.NET	PS 9 out (due 4/3)
3/27	PS 9 out (due 4/3)	
3/31	ASP.NET	
4/2	ASP.NET	Project out (due 5/6)
4/7	ASP.NET	
4/9	ASP.NET	
4/14	ASP.NET	
4/16	ASP.NET	
4/21	Conclusion	
4/22	Project demonstrations	
4/28	Project demonstrations	
4/30	<b>Reading Day (no class)</b>	
5/5	Project demonstrations (3:30-5:30 p.m.)	