

Syllabus

COS375 : Web Applications Development

Fall 2017

Professor: [Bruce MacLeod](http://cs.usm.maine.edu/~macleod) (cs.usm.maine.edu/~macleod)
Room 222 Science Bldg.
email : macleod at maine.edu
Tel: 780-4285
Office Hours: M 12:45 PM - 1:30 PM
W 12:00 AM - 2:30 PM or by appointment

Course Objectives:

This course focuses on the development of well-designed web applications. Students will learn how to build rich user interfaces using client-side frameworks, develop web services, and use design patterns in their web software applications. Course requires include a substantial number of programming projects.

Assignments:

Assignments and a final project are a fundamental part of this course. The final project will involve ongoing consideration throughout the semester and will be due on the day the final is scheduled.

Text:

- Pro Angular, Packt Press, ISBN : 9781484223079 [Library Link](#)
- Professional Java for Web Applications, Wrox Press, ISBN : 978-1118656464 [Library Link](#)

Grading:

- Exams (2) 25%
- Assignments (6) 40%
- Final Project 25%
- Labs 10%

Any assignments handed in late will incur a 2% a day reduction in the assignment grade. Any students which choose to work together on an assignment must make a note of the fact on the top of the assignment. Failure to do so will result in no credit for the assignment and possible failure of the course.

Teamwork on Programs It is acceptable to work with other students in the analysis, design, and debugging phases of your programming assignments. However, unless it is a team project, do not write code as a team. Do not copy your code from or for another student. . Please list the students with whom you collaborated, and the type of help you gave or received in a comment at the top of your program.

[Links to related material](#)

Reading, assignment, and exam schedule

August

8/28	<p>Introduction</p> <ul style="list-style-type: none"> -- Java Web Development -- Angular -- Spring Framework <p>Reading : Java for Web Applications, Chapter 1</p>
8/30	<p>Servlets</p> <p>Reading : Java for Web Applications, Chapter 3</p> <p>Lab : Setup! Bring your Laptops (no problem if you do not have one though)</p>

September

9/4	Labor Day : no class
9/6	<p>Java Server Pages (JSP)</p> <p>Reading : Java for Web Applications, Chapter 4</p> <p>Lab : Git</p>
9/11	<p>Maintaining State</p> <p>Reading : Java for Web Applications, Chapter 5</p>
9/13	<p>Introduction to Angular</p> <p>Reading : Pro Angular, Chapters 2,3</p> <p>Reference : Pro Angular, Chapter</p>

	11 Lab : Introductory Angular Tutorial Assignment #1 Due
9/18	HTML & Javascript Reading : Pro Angular, Chapters 4,5 & 6
9/20	SportsStore Application Reading : Pro Angular, Chapter 7 Reference : Pro Angular, Chapter 12 Lab : Angular Tutorial, Part 2
9/25	SportsStore Orders and CheckOut Reading : Pro Angular, Chapters 8 Reference : Pro Angular, Chapter 13 Assignment #2 Due
9/27	SportsStore Admin and Deployment Reading : Pro Angular, Chapters 9 &10 Lab : Angular Tutorial, Part 3

October

10/2	Data Bindings Reading : Pro Angular, Chapters 11 &12
10/4	Events and Forms Reading : Pro Angular, Chapters 14 Lab : Reactive Forms Assignment #3 Due
10/9	Fall break
10/11	Exam 1 Sample Questions No Lab today
10/16	Asynchronous HTTP Requests Reading : Pro Angular, Chapters 24
10/18	Angular Unit Testing Reading : Pro Angular, Chapters 29 Lab: Testing in Angular
10/23	Wrapping things up & Project Proposal discussion Reading : Tutorial Assignment #4 Due
10/25	Spring Framework Introduction Reading : Java for Web Applications, Chapter 12 Lab: First look at Spring

10/30	Storm ... class cancelled
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November

11/1	<p>Spring Framework Controllers</p> <p>Reading : Java for Web Applications, Chapter 13</p> <p>Lab : Spring MVC/JSP</p>
11/6	<p>Services and Repositories</p> <p>Reading : Java for Web Applications, Chapter 14</p> <p>(Read up to the section : Improving Services with Asynchronous and Scheduled Execution)</p>
11/8	<p>Validation</p> <p>Reading : Java for Web Applications, Chapter 16</p> <p>Assignment #5 Due</p> <p>Lab : Complete Tutorial</p>
11/13	<p>REST Web Services (Read up to the section : Using Spring Web Services for SOAP)</p> <p>Reading : Java for Web Applications, Chapter 17</p>
11/15	<p>Entities to Tables : JPA Annotations</p> <p>Reading : Java for Web Applications, Chapter 20 (read up to section on Managing Complex Types)</p> <p>Lab : Angular/Spring Framework Integration</p>
11/20	<p>Using JPA in Spring</p> <p>Reading : Java for Web Applications, Chapter 21</p> <p>(exclude sections concerning transactions & Converting Data with DTOs and Entities)</p>
11/22	Thanksgiving break
11/27	<p>Project Day !</p> <p>No Reading. Meet in lab for help with projects</p> <p>Assignment #6 Due</p>
11/29	<p>Second Exam (Sample Questions)</p> <p>No Lab</p>

December

12/4	Final Project Presentations Presentation Order
12/6	Final Project Presentations Presentation Order
12/11	Final Project Due by noon (submission instructions)