Instructors

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Course Description

Advanced web site development, including the use of Application Programming Interfaces (APIs) to retrieve and process data, knowledge representation on the web, advanced methods of displaying and plotting information, and other techniques necessary to build modern functional web sites.

Learning Objectives

Upon completing this course, students should be able to:

1. Design and implement a dynamic web program with asynchronous operation

2. Discuss the benefits of and utilize JavaScript toolkits

3. Design and implement clientside data processing with JavaScript

4. Discuss knowledge representations used by web services and web sites

5. Identify and invoke relevant web services to accomplish an information need (supports Course Outcome ITm).

6. Describe the basic operation of modern search engines

7. Describe basic web server configuration and security

Textbooks

Internet & World Wide Web: How to Program, Fifth Edition, P. J. Deitel and H. M. Deitel; Prentice Hall, 2012

Prerequisites

IT350 - Internet and Web Programming

Extra Instruction (EI)

EI is available and encouraged. Since this course continually builds upon material previously presented, it is crucial that you seek EI as soon as you have problems understanding the material. However, you must come prepared with specific questions or areas to be discussed (i.e. have read any assigned readings).

Classroom Conduct

The section leader will record attendance and bring the class to attention at the beginning and end of each class. Drinks are permitted, but they must be in sealed containers. Food, alcohol, smoking, smokeless tobacco products, and electronic cigarettes are all prohibited. No use of computer equipment for any purpose other than as outlined in the class activity is permitted, this is a distraction and will not be tolerated, i.e. reading e-mail, playing games, or messaging classmates. **Cell phones must remain silent during class. Their use is prohibited unless explicitly allowed by your instructor for a specific activity.**

Grading

	6wk	12wk	16wk	Final
Labs	70%	60%	60%	50%
Topic Presentation		10%	10%	8%
Final Group Project				15%
Exams	30%	30%	30%	27%
Total	100%	100%	100%	100%

Topic Presentation

Teams of students will independently investigate an approved topic, then have responsibility for one class period during which the topic shall be presented. Grades shall be based on content, preparation (including timely submission of lesson plans to the instructor), presentation quality, engagement of the audience (exercises and/or activities to promote learning are encouraged), and peer evaluation by the audience. Team members might not receive the same grade.

Project

There will be a single final team group project. Projects must be completed entirely by the teams making the submission. The project grade will be based upon the instructor's estimation of the group's collective results, **adjusted for each team member based upon**

the other group members' estimation of the individual's teamwork and contribution.
Project presentations/demonstrations will occur during the final exam block.

Exams

All exams should be considered to be **comprehensive**, but a majority of the material will come from the recent portions of the course. If for some reason a make-up exam will be required, inform the instructor at least 1 week in advance. All exams will be closed books, closed notes. Students will be allowed to bring individually prepared, hand-written, letter-size "study sheets" with anything written on them (1 sheet for the 6-week exam, 2 sheets for the 12-week exam, 3 for the final). **Study sheets will be collected at the exam and will not be returned.** Use of any electronic devices is not permitted during the exams.

Quizzes

Be prepared. Quizzes may occur randomly throughout the semester and will be open or closed book/notes, as announced.

Late Assignments

Unless otherwise specified, all lab assignments are due at 2359 on the day preceding the next lab via the online system `submit.cs.usna.edu`. (Example if you have labs on Thursday, the lab will be due the following Wednesday at 2359). **Late assignments will _not_ be accepted** as answers will be automatically posted to the web page at 0001 the following day. Attempts to submit a late assignment will be automatically rejected by the submission system and you will receive a score of 0 on that assignment. **Multiple missing assignments will result in significant grade reductions for this course**. Anyone missing 3 assignments can not achieve a grade higher than a B in the course, someone missing 4 assignments can not achieve a grade higher than a C, 5 or more assignments the highest grade possible will be a D.

Missing Assignments (Labs)	Best Possible Grade in Course
3	B
4	C
5 or more	D

Honor

You are expected to follow the guidance given in:
Honor Concept of the Brigade of Midshipmen, USNAINST 1610.3F (or newer)
Policies Concerning Graded Academic Work, USNAINST 1531.53 (or newer)

Collaboration: The guidance in the Honor Concept of the Brigade of Midshipmen and the Computer Science Department Honor Policy must be followed at all times. See www.usna.edu/CS/resources/honor.php. Specific instructions for this course:

- Labs: You may collaborate on laboratory assignments to the following extent: **collaborative conversations with regard to syntax, strategies and methods for accomplishing the goal of the labs are encouraged;** however programming & implementation must be the work of the individual student handing in the final product. Sharing or copying of code is never permitted. In addition, you must identify all those that you collaborate with (give or receive help) on your assignment cover sheet (or submitted README file). You may never look at another student's written answers. This restriction also prohibits "checking your answers" by comparing answers side by side. Consult your instructor if you need further clarification.

- Team Projects: The only collaboration allowed is among members of the same team. A midshipman may give no assistance whatsoever to any person not on their assigned team and may receive no assistance whatsoever from anyone outside the team, except from the instructor.

- **Online Resources:** You can use online resources to assist your learning. These often contain code examples. You **must identify** in your final code every instance of code you adapted from an outside source. Using external code without citing it is an honor offense. Write a comment block with the citation above the portion of your code that you adapted from an online resource.

All collaboration and outside sources should always be cited. The same rules apply for giving and receiving assistance. If you are unsure whether a certain kind of assistance or collaboration is permitted, you should assume it is not, work individually, and seek clarification from your instructor.

Give credit where it is due! The calendar uses CSS from the skeleton CSS library at getskeleton.com (MIT License), and the bootstrap libraries at getbootstrap.com. **Make sure you always cite your materials as well!**