



Web Application and Technologies (COMP 334)
Second Semester 2017/2018

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This course is a survey of Web programming technologies. It begins with a discussion of what Web servers and clients are, how they interact, and how one sets them up. We then explore a wide variety of Web technologies including HTML, CSS, JavaScript, PHP, and XML and many related technologies. Our goal in this course is to provide the basic understanding and knowledge of how the Internet and World Wide Web operate and the technical knowledge required to establish and maintain an Internet/Web site and to develop and introduce new capabilities and features on such sites.

Course outcomes

Upon completion of this course, students should be able to:

- able to define modern protocols and systems used on the Web (such as, HTTP, URLs, DNS)
- develop the skills needed to build responsive web pages using HTML and CSS.
- acquire the knowledge and the skills needed to develop web browser interfaces using JavaScript and Document Object Model (DOM).
- acquire the knowledge and skills needed to develop web-based server-side applications using PHP.

Course Outline

| Week | Major Items | Topics | Reference |
|------|------------------------|---|-------------|
| 1 | | <ul style="list-style-type: none"> • Introduction to the WWW | Ch 1 |
| 2 | | <ul style="list-style-type: none"> • Intro to HTML <ul style="list-style-type: none"> ○ Markup ○ HTML history ○ Request Response ○ Tags ○ Attributes | Ch 2 |
| 3 | Assignment 1 | | |
| 3 | | <ul style="list-style-type: none"> • Intro to CSS <ul style="list-style-type: none"> ○ Including CSS ○ Basic CSS examples ○ Attributes ○ CSS Selectors ○ Box Model | Ch 3 |
| 4 | | <ul style="list-style-type: none"> • Advanced HTML <ul style="list-style-type: none"> ○ HTML Tables ○ HTML Forms | Ch 4 |
| 5 | Assignment 2 | | |
| 5 | | <ul style="list-style-type: none"> • Advanced CSS <ul style="list-style-type: none"> ○ Floating Layouts ○ Responsive Design | Ch 5 |
| 6 | | <ul style="list-style-type: none"> • JavaScript: Client-Side Scripting | Ch 6 |
| 7 | Assignment 3 / Midterm | | |
| 7 | | <ul style="list-style-type: none"> • PHP Intro | Ch 8 |
| 8 | | <ul style="list-style-type: none"> • Intermediate PHP <ul style="list-style-type: none"> ○ Arrays ○ Superglobals | Ch 9 |
| 9 | | <ul style="list-style-type: none"> • Advanced PHP <ul style="list-style-type: none"> ○ Classes/Objects ○ Page Based Design | Ch 9, Ch 10 |
| 9 | Assignment 4 | | |
| 10 | | <ul style="list-style-type: none"> • Databases in PHP | Ch 11 |
| 11 | | <ul style="list-style-type: none"> • Error Handling | Ch 12 |
| 13 | | <ul style="list-style-type: none"> • Managing State <ul style="list-style-type: none"> ○ Cookies/Sessions | Ch 13 |
| 14 | Project | | |
| 14 | | <ul style="list-style-type: none"> • Advanced JavaScript & jQuery | Ch 15 |
| 15 | | <ul style="list-style-type: none"> • XML Processing | Ch 17 |

Grading:

| | |
|--------------------------|-----|
| Midterm | 20% |
| Project (Group of 3) | 15% |
| Assignments (individual) | 25% |
| Final | 40% |

Text:

Fundamentals of Web Development by Randy Connolly and Richard Hoar, ISBN10:0-13-340715-2, Pearson Publishers

References

- 1) Learning PHP, MySQL, & JavaScript, 4th Edition, Robin Nixon, O'Reilly 2014, ISBN 978-1491918661
- 2) Core Web Programming, Second Edition, Marty Hall, Larry Brown, Prentice Hall, ISBN : 0-13-089793-0
- 3) Web Programming Building Internet Applications, 3rd Edition, Chris Bates, Wiley, 0-470-01775-9
- 4) Web Applications - Concepts and Real World Design by Craig Knuckles and David Yuen , Wiley, ISBN 0-471-42929-5
- 5) Dynamic Web Application Development using PHP and MySql, Simon Stobart and David Parsons, Course Technology- Cengage Learning, ISBN: 9781844807536