Web Development and Programming
CSCI-UA 61

Class 1
Introduction and Overview
Web Development
Web Development

The Internet and the Web

The Internet and the Web are separate but related things.

The Internet is a massive network of networks, a networking infrastructure that connects computers globally.

The Web is a way of accessing information over the medium of the Internet, an information sharing model that is built on top of the Internet.

The Web is just one of the ways that information can be disseminated over the Internet but it is the one we are focused on in this class.
Web Development and Programming

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Overview

This course provides concrete knowledge in Web technologies and programming. Students build interactive, secure, and powerful Web programs while covering client- and server-side technologies for the World Wide Web. We will explore technical foundations of the Web and learn key technologies including HTML, CSS, JavaScript, and PHP.
“Front end” Web development refers to the elements of a website that a person sees and interacts with.

The languages most often employed in front end web development are HTML, CSS, and JavaScript:

- HTML describes content
- CSS defines appearance
- JavaScript facilitates interaction

All of the above happen directly in the Web browser.
Web Development

Back End

“Back end” Web development refers to the functionality of a website that is not visible to a person.

If you buy something online, you interact with the front end of the store; the transaction takes place on the back end of a database on a Web server.

The back end usually consists of a server, an application, and a database.

The languages most often employed in back end web development are PHP, Ruby, and Python.
Topics
Class 1
Introduction and Overview
• Language Basics
• Functions
• Objects
• Decisions
• Loops
• Document Object Model
• Events
• Libraries
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Class 1  
Introduction and Overview

JavaScript  
ECMAScript

• Language Basics
• Functions
• Objects
• Decisions
• Loops
• Document Object Model
• Events
• Libraries
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Class 1
Introduction and Overview
Topics

JavaScript

Why JavaScript?
Topics

JavaScript

Why JavaScript?

• Programming language of the Web

• ECMA-262 is an ISO standard

• Not difficult to learn or debug

• Variety of frameworks and libraries

• Thriving user community

• Bright future
Topics

Outline

• HTML
• CSS
• JavaScript
• JavaScript libraries
• PHP
• AJAX
• Web APIs
Introductions
Introductions

Me

Joshua Clayton
Clinical Assistant Professor

jclayton@cs.nyu.edu

Office hours
• Tuesday, 9:30–11:00 a.m.
• Wednesday, 1:30–3:00 p.m.

Room 420, Warren Weaver Hall

cs.nyu.edu/cs/faculty/clayton
Introductions

You

• Name

• Where you’re from (or where you identify most closely with)

• Your major

• What interests you about this class
Syllabus
This course is oriented toward Web Programming and Applications Minors.

It is not an advanced programming class, nor is it a beginner-level class.

Students should already be familiar with HTML, CSS, and the basics of computer programming.

However, I will assume no experience whatsoever with JavaScript or PHP.
Syllabus

Attendance

You are expected to come to all classes and arrive on time.

Please let me know in advance if you will be out for any reason.

Please let me know if you miss class due to illness.

Computers are welcome in class but not required.

If you ever feel overwhelmed or need extra help, I will be available to you.
Class 1
Introduction and Overview

**Syllabus**

**Texts**

Required:

*JavaScript and JQuery: Interactive Front-End Web Development*

Optional:

*Learning PHP, MySQL, & JavaScript* (Fourth Edition)
Syllabus

Assignments

There will be eight assignments. Details of each will be posted on the class website.

All assignments are to be submitted via NYU Classes.

Do your best to turn work in on time. 10% will be deducted for each class day after the deadline.

No assignments will be accepted after three classes or after the final exam.
Syllabus

Grading Rubric

Assignments: 40%
Midterm exam: 25%
Final exam: 35%
For Next Class

Review class website

Get access to *JavaScript and JQuery* book and read the “Introduction” chapter
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Class 1
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