

# Syllabus for CS 460 -- Advanced Web Programming

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## Intro

CS460 is a class designed to teach students how to run programs that receive input and output from the Web, and to put computerized databases onto the web. This means placing real live programs and databases, with data that might change on the fly, and with search capabilities, into an HTML format.

The class will cover

- Easy Stuff
  - Basic web architecture
    - Review the basics
    - Caching (and defeating it)
    - Accounting
  - HTML including
    - The Web (client/server) paradigm
    - Basic HTML form
    - HTML Forms
    - Basic graphic design stuff
- Database concepts, including
  - Definitions of tables and relations, rows, fields, etc.
  - Relational algebra
  - SQL statements like SELECT, CREATE, etc.
  - (Maybe) Data normalization
- Perl
  - Perl syntax
  - Perl subroutines and functions
  - Perl database operators
  - CGI scripting with Perl
- PHP
  - PHP Syntax
  - PHP and databases
  - Making images and pictures in PHP
- JavaScript
  - Basic syntax
  - Validating forms using Javascript
  - Fancy web graphic tricks using Javascript

## Grades

Each section will count equally towards your grade. Within each section there will be one baby project and one large project and one written test. The projects and the test count equally. . It IS fair game for tests to refer to previous material. For example, it is quite reasonable that the perl test might require HTML knowledge.