

Syllabus

CSCI 342, Web Scripting, Fall 2017

Instructor: Geoffrey Matthews, x3797, geoffrey dot matthews at wwu dot edu

Lectures: MTWF 10:00-10:50 am AH 018

Office hours: MTWF 11:00, CF 469

Webpage: wwu.instructure.com: homework assignments, grades

Repository: <https://github.com/geofmatthews/csci342>: handouts, lectures, code

Text: There is no textbook. Online readings are listed in the `lessonplan.pdf` file on github.

Catalog copy: Development of dynamic Web applications. Study of various server-side scripting languages (PHP, Perl, Python, Ruby on Rails) for creating dynamic Web pages and querying and manipulating Databases on the Web.

Content: We will study the development of programs and scripts for Web server applications and implement dynamic web pages in the Unix and Windows environments. The course will include a study of various scripting languages, and database access through database management systems. Implementations will be using a variety of languages (possibly including PHP, Python, Ruby, Javascript and others), their database interfaces and a simple SQL database management system.

Course goals: After successfully completing this course, students will be able to:

1. have an understanding of what scripting languages can do and how they are used to develop Web applications
2. demonstrate a working knowledge of a variety of scripting languages.
3. have a complete understanding of Web concepts and technologies such as HTTP protocol, CGI, database connectivity, security, AJAX and XML
4. have a working knowledge of the design and development of web based applications using a number of tools and strategies
5. have the ability to use of databases as data repositories for web applications
6. implement a number of tools and technologies used today to develop modern web applications

Software: The software we develop will require both scripts that run in web browsers and scripts that run in web servers. You already have a browser, but it will be convenient to have your own server, as well.

You may already have this on your system, but if not you should install on your laptop (or on a portable disk or thumb drive) a copy of XAMPP: <https://www.apachefriends.org/index.html>. This will install an Apache web server complete with PHP, Perl, and MariaDB (similar to MySQL).

NodeJS and Django each come with their own demo servers, available for download on their sites.

Exams: You may bring two double-sided pages of notes to use during the exams.

Midterm	Friday, November 3, classtime
Final	Tuesday, December 12, 8:00-10:00am

Homework: Homework assignments will be passed out regularly through the quarter, generally involving the creation of a web site. Homework will be due at midnight on the due date. Work will be accepted with no penalty up to 48 hours after the due date. These 48 hours constitute an extension to the due date for emergency purposes only. Do not abuse them: there will be no further extensions. There may be an assignment due during dead week.

Grading: Adjusting the grades upward based on class statistics, and awarding plus and minus grades, are at the discretion of the instructor.

Homework	Midterm	Final
50%	20%	30%

Percentage:	0-59	60-69	70-79	80-89	90-100
Grade:	F	D	C	B	A

Academic dishonesty: Academic dishonesty policy and procedure is discussed in the University Catalog, Appendix D. All students should read this section of the catalog. Academic dishonesty consists of misrepresentation by deception or other fraudulent means. In computer science courses this frequently takes the form of copying another's program, either a fellow student's program, or copying one from the web. Due diligence should be exercised in the labs at all times, since both copying and letting someone else copy your program are equally culpable. Do not walk away from your computer in the lab without logging out or locking the screen. Do not share files, even if it is just to "show them something." Describe it in words, or talk to them in person, never share code.

Collaboration: Collaboration with your fellow students is a good way to learn. Feel free to share ideas, solve problems, and discuss your programs with other students. However, collaboration is *not* copying. All code should be original. Remember the **Simpson's Rule:** after discussing homework with another student, each of you must destroy all written notes, pictures, files, *etc.* that you shared. After that, you must watch a rerun of *the Simpson's*, or do something else unrelated, for half an hour. Then you can take the knowledge you gained from another student and put it to work, since it is now not copying, but learning. You have made it your own.

Topics: Some or all of the following, depending on time and class interests.

- Client-side
 - HTML
 - CSS
 - Javascript
 - * DOM
 - * JQuery
 - * VanillaJS
 - * Regular expressions
 - * JSON
 - * XML
 - * AngularJS
 - * AJAX
- Server-side
 - PHP
 - * AJAX
 - NodeJS
 - * Express
 - * MySQL
 - * MongoDB
 - Django
 - Rails