

CS 418/518
Web Programming
Fall 2017

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<http://www.cs.odu.edu/~jbrunelle/cs518>

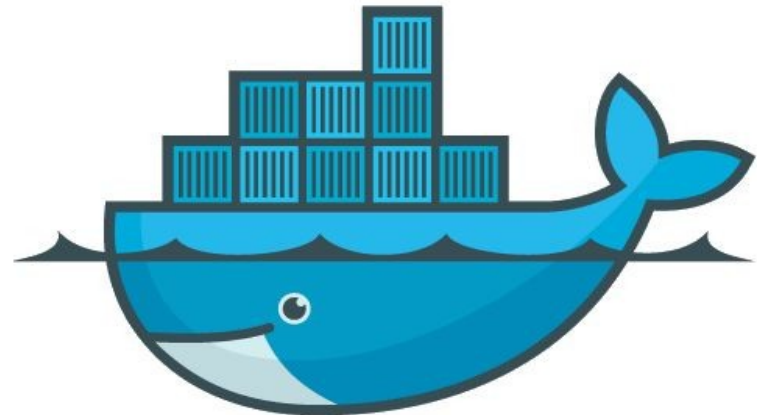
Course Concepts

- LAMP Architecture
- Web Architecture
- Web Standards



Course Content

- LAMP: Linux, Apache, MySQL, PHP
- GitHub
- jQuery
- Docker



Why LAMP?

- Standard, well documented stack
- Teaches web design fundamentals
- Open Source
- Why not Node.js/METEOR/MEAN/whatever?
 - Fewer “standard” tutorials and examples
 - Recently popular technologies, but do not exemplify standard web design principles
 - LAMP principles translate natively to these technologies

LAMP:



Why GitHub?

- Industry standard
- Public!
- Accountability
- Branching/rollback/repository/tracing

GitHub



Why jQuery?

- Adding client-side development to LAMP
- Standard library
- Widely adopted



Why Docker?

- Emerging industry practice
- Principles translate to other services
- Re-usability
- Consistency



Administrative Notes

- Room (Dragas 1117)
- Meeting times (4:20-7:00)
- *No Exams*
- Demos and projects
- Simulates long-term, professional development environment

Course Resources

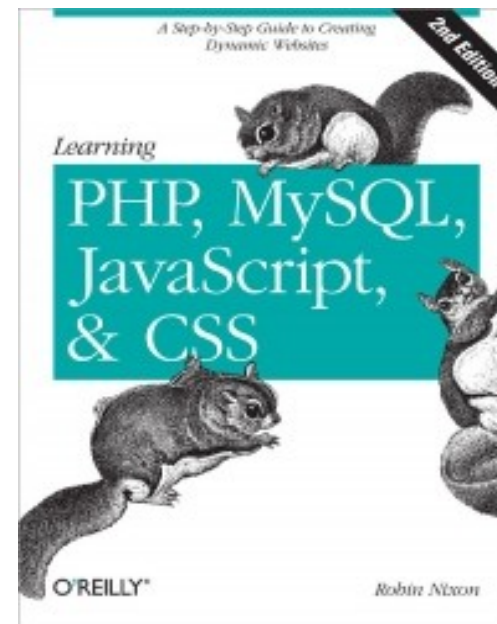
- <http://www.cs.odu.edu/~jbrunelle/cs518>
- Syllabus
 - You are responsible for knowing all policies in the syllabus
- Readings
 - Listed under the day they are expected to be completed.
- Lecture Notes and Assignments
 - Posted on schedule page before class

Additional Resources

- W3C
- Stack Overflow
- Waterloo Course Website:
<https://opencs.uwaterloo.ca/web-basics/>
<https://opencs.uwaterloo.ca/web-programming/>

Optional: Textbooks

- Beginning PHP5, Apache and MySQL Web
- PHP, MySQL, & JavaScript
 - Free access on campus:
<http://proquest.safaribooksonline.com/book/databases/mysql/9780596803605>



Development

- Course prerequisite: CS330 – OOP and Design
- Assuming basic HTML and CSS experience
- Course development done in LAMP
- Git for source control (<https://try.github.io>)
- Docker for deployment & grading

Course Projects

- Single project
 - Long-term development
 - F16: Stack Overflow
 - F17: Slack
 - **F18: Social Media**
- 4 “releases”
- Intra-group or individual **only**
 - Collaboration via class mailing list and slack *only*

Grading

- *Dockerized* development
 - No magic laptops!
- Submissions via GitHub
 - Used for demos and grading
 - Creates a public portfolio
- Feedback/grading sent via email

Rough Grading Outline

- 4 releases, 25 points each
 - 15 points – Functional requirements
 - 3 points – project write-up
 - 3 points – website usability
 - 2 points – aesthetics
 - 2 points – status report
- Extra credit
 - Additional features
 - 0-10 extra points pending quality

Class Policies

- Follow academic integrity policies
- Attendance is not required
 - But you are responsible for material covered in class
 - Attendance required on demo days
- Seeking help
 - Mailing list *only*
 - ***All unapproved collaboration considered an honor code violation!!***
- Office hours: Friday afternoons
 - Please email me to make an appointment

How to cheat

- Cheating results in a score of 0/25 for your milestone
- Inter-group collaboration
- Sharing code
- Passing off open source code as your own
- Failing to cite your code “inspiration”

Dr. Justin F. Brunelle

- BS, MS, PhD in CS from ODU
- Advisor: Dr. Michael L. Nelson
 - s/VT/ODU/
s/Electronic Music/.*/
 - Ford muscle cars
- Digital preservation research @ ODU
 - Web Crawling, JavaScript, Web Architecture
- Principal Researcher @ MITRE
 - Helping government adopt emerging tech
 - Specialize in data & cloud computing

