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
Why GitHub?

- Industry standard
- Public!
- Accountability
- Branching/rollback/repository/tracing
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](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
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: Stack Overflow
  - Long-term development
- 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
Grading

• 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 and slack 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
- Lead Researcher @ MITRE
  - Helping government adopt emerging tech
  - Specialize in technology forecasting & cloud computing