AME 470/570
Programming for Social and Interactive Media

Term: Spring 2018
Location: Stauffer B-103
Times: M/W 9:00am-10:15am

Faculty: Tejaswi Gowda, Ph.D
Email: tejaswi@asu.edu
Office Hours: M/W 12:00am-1:00am (in Stauffer B-204) and by appointment.

Final Exam:

Wednesday, May 2	**7:30 - 9:20 AM**

Course Description: This course introduces programing tools and concepts needed to develop website, web servers and web apps. This course will teach the students to effectively use HTML5, JavaScript, CSS, Node.js, MongoDB, Apache Cordova and how to embed webapps as native Android and iOS.

Student Learning Outcomes:

- **Students will be able to:**
  - **Make websites and apps using HTML5, JavaScript and CSS.**
  - **Create responsive web experiences.**
  - **Package webapps into native iOS and Android apps using Apache Cordova.**
  - **Create simple web servers using Node.js**
  - **Setup MongoDB databases and integrate them into a Node.js backend.**
  - **Code interfaces to share web content on social media.**
  - **Use 3rd party APIs to enhance user experience.**
  - **Write simple JavaScript APIs.**

Required Text:

- **No required textbook**
- **CSS / jQuery / JavaScript / HTML5 and other tutorials are listed below and posted to BlackBoard.**

Software/Hardware:

- **Google Chrome Browser / Inspector**

- **Simple Text Editor (example: TextMate on Mac, Notepad on Windows, VI on Unix)**
- **GitHub account (Free account)**
- **Amazon Web Services (Free tier account)**
- **Minimal hardware requirement: Mac, Chromebook, Linux Box or Windows PC**
- **Mac, Xcode and iOS simulator needed for iOS development (Laptops will be provided in class).**
- **Eclipse and Android developer tools needed for Android development.**
- **Node.js and mongoDB and other 3rd party tools will be installed on amazon ec2 (ec2- elastic cloud compute).**
- **Class Repo: https://github.com/tejaswigowda/ame4702018**

Assignment Schedule:
1/22 - 1st Assignment Due
2/7 - 2nd Assignment Due
2/26 - 3rd Assignment Due
3/12 - 4th Assignment Due
3/21 - 5th Assignment Due
4/4 - 6th Assignment Due
4/16 - 7th Assignment Due
5/25 - 8th Assignment Due
5/2 - Final Exam

All assignments are due a 9:00am before class.

Course Readings:
CSS Tutorial
http://www.w3schools.com/css/

jQuery for absolute beginners -- Video series (14 parts)
https://www.youtube.com/watch?v=loAVkjDhGeI

HTML5 Tag reference
http://www.w3schools.com/tags/

jQuery API Reference
http://api.jquery.com/

RSS Basics
http://en.wikipedia.org/wiki/RSS

Bootstrap JS Reference
http://getbootstrap.com/javascript/

JS Tutorial
http://www.w3schools.com/js/

Client Server Model
http://en.wikipedia.org/wiki/Client%E2%80%93server_model

CSS Animations
http://www.w3schools.com/css/css3_animations.asp

Node.js Get Started Documentation
http://nodeguide.com/beginner.html

Course Readings (Continued):
Node.js on AWS
http://iconof.com/blog/how-to-install-setup-node-js-on-amazon-aws-ec2-complete-guide/

mongoDB on AWS
http://docs.mongodb.org/ecosystem/platforms/amazon-ec2/

Node mongoskin
https://github.com/kissjs/node-mongoskin

Apache Cordova
http://cordova.apache.org/

Grading and Evaluation:

All assignments will be turned in on Bitbucket and/or GitHub. More details for each assignment will be introduced in class. Assignments 1-7 are worth 12% of your grade and Assignment 8 is worth 16% of your grade.

Final Exam

The final exam will be an opportunity for 10% extra credit. You will be given a one and a half hour task similar to one a prospective employer would give you to test your skill in coding. This brings the total amount of points in the class to 110 points and gives you the possibility of getting ten points extra credit.

Course Grading Scale:

This course uses +/- grading

A+: 97-110%	A: 93-96%	A-: 90-92%
B+: 87-89%	B: 83-86%	B-: 80-82%

C+: 77-79% C: 70-76%
D: 60-69%
E: 0-59%

Attendance:
Attendance is important for your success in this class. Take advantage of time in class to ask questions and write original code.

Absences will be excused if related to religious observances/practices that are in accord with ACD 304–04, "Accommodation for Religious Practices." Please inform me at the beginning of the semester of absences for religious observance/practice.

Absences will also be excused if related to university sanctioned events/activities that are in accord with ACD 304–02, "Missed Classes Due to University-Sanctioned Activities." Again, please inform me at the at the beginning of the semester of absences related to university-sanctioned activities.

Academic Integrity
All necessary and appropriate sanctions will be issued to all parties involved with plagiarizing any and all course work. Plagiarism and any other form of academic dishonesty that is in violation with the Student Code of Conduct will not be tolerated. For more information, please see the ASU Student Academic Integrity Policy: http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm

In addition to plagiarism and other forms of academic dishonesty I want to draw your attention to the following:

> Due to the nature of the course, you will be submitting code for your assignments. While the use of 3rd party open-source APIs is allowed, each student must submit their own work. You are not to copy work from other students in the class or the internet.

Accommodations for students with disabilities
To request academic accommodations due to a disability, please contact the ASU Disability Resource Center (http://www.asu.edu/studentaffairs/ed/drc/# ; Phone: (480) 965-1234; TDD: (480) 965-9000). This is a very important step as accommodations may be difficult to make retroactively. If you have a letter from their office indicating that you have a disability which requires academic accommodations, in order to assure that you receive your accommodations in a timely manner, please present this documentation to me as soon as possible so that your needs can be addressed effectively.

Disruptive, Threatening, Violent Behavior
Disruptive, Threatening, Violent Behavior will be dealt with per the Student Services Manual, SSM 104–02, "Handling Disruptive, Threatening, or Violent Individuals on Campus".

Incompletes
Incompletes are awarded for the most special circumstances and are not handed out freely. Each incomplete is considered on a case by case basis to determine the extent to which they are warranted.

Footnote 18
Footnote 18 pertains to Barrett Honors College students. These contracts are formalized arrangements in which the student and faculty negotiate course requirements during the first week of classes. As with all honors courses, only courses taught by regularly appointed faculty members or by distinguished visitors are eligible to carry the footnote 18 designation. Contracts should be explicit and fully detail the expectations for both the quantity and quality of work.