

COSC 480 - Topics in Computer Science
Full-Stack Development
Fall 2019
Syllabus

Deeply learning about deep learning.

Just the Facts

Course Number: COSC 480
Title: Topics in Computer Science - Full-Stack Development
Semester: Fall 2019
Meeting Time: MWF 12:00 - 1:10 pm
Locale: Schaefer 165
Instructor: Alan Jamieson
Office: Schaefer 154
Office Hours: T 10-11:30am, W 1:30 - 2:30pm, or by appointment
Email: acjamieson@smcm.edu
Google Messenger: acjamieson@smcm.edu
Slack: via Alan's COSC480 Group
Online Office Hours: Most evenings and weekends
Recommended Textbooks: None!
Website: <http://ripark.github.io/f19/cosc480>

Catalog Description: This course is a rigorous study of an important field in computer science. Examples: data security; bioinformatics; natural language processing; compilers. A detailed course description will be available before registration. The course may be repeated for credit where the topic is not repetitive. Prerequisite: COSC 201 or permission of the instructor.

Overview: In this course, you will be learning the basics of rapidly developing and deploying web applications. When a single software engineering team takes on this task, it is called full-stack development, representing all of the pieces that goes into a single application. The course features the main parts of full web applicaiton development, including databases, front-end, and server-side development. In addition an introduction to scalable cloud computing will be presented.

Purpose: The purpose of this course is to give you the broad overview of what goes into full-stack development, its unique challenges, and how true full-stack development isn't actually done. Full-stack development isn't a new concept by any means, but with the advent of web-focused applications, their interaction in the mobile space, and the need for rapid product development, full-stack development is a hot term in technology. This course is designed to be a project-style course with the focus being guided exercises and projects where the students will learn via practice rather than via lecture.

Grade Distribution:

Labs/quizzes/homework - 20%
Major project proposal - 10%
Major project milestones - 15% each
Major Project final - 30%
Major Project Presentation - 10%

You will be expected to participate in class by asking questions and answering questions posed by myself and those in class. Rather than a drab lecture, the class sessions will be run in a discussion style environment. Activity and debate are highly encouraged.

Learning Objectives: At the completion of COSC 480, students will be able to:

explain the aspects of the topic of the course
implement problem work in the topic of the course

design solutions to large problems in the topic of the course

Final Information: There will not be a final exam in this class, but teams will be presenting their final projects during the final period Tuesday, December 17 at 7pm in Schaefer 165. Failure to attend the presentations will result in an F for the course.

Assignments: The primary assessment point for the course is the major project, a 10-week group project where you get to design and develop a complete web application culminating in a presentation of your application during the final period. There are milestones throughout the project implementation portion of the course, as well as weekly check-in presentations that are required for every group. All total, this encompasses 80% of your grade in this course. Peer reviews, team reviews, GitHub participation checks, as well as the implementation of your work all factor in to your grade. Teams are expected to work together and communicate effectively. Team issues need to be brought to my attention early and often (if they exist). Coming to me with a week to go with these issues will not be helpful and, in general, the team succeeds together - or not.

Blackboard Use: I will be utilizing Blackboard primarily for your grades in this course. Course materials will be provided on the course website.

GitHub Use: Major project files will be maintained on GitHub. Any questions, concerns or objections should be noted during the first week of classes. You will be given a primer on how to use GitHub during the first part of the semester.

Policies

Cell Phones: Please, turn off or turn to silent any cell phones prior to getting to class. If they go off in class they are distraction not only to myself, but to everyone else in the class as well. Habitual offenders will be excused from the class with a 0 for any quizzes and class participation for that day.

Computer Use: Computer use in this lab is for academic use only. If you bring a laptop with you to this class I expect you to be only using it for purposes related to this class. The same goes for the computers in this lab.

Attendance and Tardiness: Attendance is highly recommended. Missing a class not only causes you to miss the information disseminated in that lecture, but can cause you to miss important information in regards to assignments and the potential of receiving a 0 for a quiz that day. I start class promptly on the hour and expect the students to be in class at that time. If you have circumstances that can prevent you from being in class on time, please let me know as soon as possible. Habitual offenders will be excused from the class with a 0 for any quizzes and class participation for that day.

Exams and Quizzes: There will be no exams in this class. Every class has the potential of having a quiz to reinforce the ideas from the previous class. These will not be announced ahead of time. They will be 1-3 question quizzes that can be easily done in 15 minutes either at the start or the end of the class period.

Assignments: Assignments and other outside of class work should be done on an individual basis unless otherwise specified in the description of the assignment. Assignments and other outside of class work will not be taken late except under extraordinary and documented circumstances.

Late Policy: You are allowed 2 "slip-days" throughout the semester. This means that you may turn in an assignment late, where each day it is late will reduce your number of slip-days by 1. So, you could turn in a project 2 days late, but then you wouldn't have any further slip-days left for the rest of the semester. Once you are out of slip-days, if you turn in the assignment late, you will earn a 0 for that assignment. As a further encouragement to turn in assignments on-time, each slip-day you have left at the end of the semester will add 0.5% to your final average. You may not use slip-days on presentations, or for the final project turnins on December 17th.

Extra Credit: I may or may not be offering any extra credit opportunities in this class.

Communication: The simplest way to get in touch with me is by coming by my office during my office hours or contacting me via email. The easiest way to get in touch with me "after hours" is to send me an email. I habitually check my St. Mary's email account all hours of the day. If you come by my office and the door is open, feel free to stop in to chat. The open door indicates that I'm not working on anything that has to keep my undivided attention at that time so do not feel that you are interrupting me or anything like that. I do make appointments if you have a certain time that you'd like to meet with me. If it fits in my schedule (meaning I'm not teaching class during that time) I will be happy to meet with you.

Academic Honesty: Academic misconduct policies are covered in the Student Code and Student Rights and Responsibilities, Article III. Pay close attention to the definitions of academic misconduct noted in Section 1. This can be found in the Student Handbook.

Disability: If you have any kind of disability that can affect your performance in this class, please let me know privately through email or stopping by my office.

Title IX and Sexual Misconduct: As stated in the St. Mary's Way, the College is a place where we strive to foster relationships based upon mutual respect, honesty, integrity, and trust. As such, we are committed to providing an educational, living, and working environment free from all forms of harassment and discrimination for all members of our community. The College prohibits all forms of sexual or gender-based harassment, discrimination or misconduct, including sexual assault, sexual harassment, relationship violence, and stalking.

If you or someone you know has experienced sexual misconduct, you may find information about resources and options on the Campus Rights webpage (www.smcm.edu/campus-rights) or by contacting the College's Title IX Coordinator, Michael Dunn (mkdunn@smcm.edu or 240-895-4105). Under College policy, faculty members are required to share any reports of sexual misconduct with Michael in order to make sure that the College is responding appropriately to address the health and safety needs of members of our community.

There are on-campus confidential resources available, including the counselors at the Wellness Center (240-895-4289) and the Sexual Misconduct Advocacy and Resource Team student-run 24/7 hotline (301-904-2015). More information about on- and off-campus confidential resources, as well as medical treatment, law enforcement, and other support services, may be found on the Campus Rights webpage.

Schedule: The schedule for the class will be posted to the class website. The schedule is subject to change (multiple times).

Closing: The most important thing in any of my classes is that you are learning and expanding your horizons. If you are having any undue difficulty with your work as it pertains to this class, please contact me as soon as possible. Always remember that professors succeed when you don't need us any longer. I want you to be bouncing ideas off of each other throughout the class and it is my hope that by the end of the semester that you are driving the class session rather than me.