

School of Communication University of Miami

CIM 593-693-1R

Dynamic Data

Spring Semester 2017

Class Time: Tu 2:00 – 4:30 PM

Class Site: <https://github.com/zevenrodriguez/CIM593-693>

Prof. Zevensuy Rodriguez

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SYLLABUS

COURSE DESCRIPTION AND PURPOSE:

This course teaches data analysis through the development of interactive web applications. The course focuses on communicating through computer programming. Students will learn to build and use databases as a primary source and explore data as content. For this course students will be required to build custom software solutions through web programming languages that utilize third party APIs to interpret, analyze and manipulate data.

COURSE OBJECTIVES:

- Provide an overview of the technologies that allow the Internet to function
- Understanding backend web production
- Learning how APIs work with custom applications

COURSE PREREQUISITES:

Prerequisites: JMM 341 or CIM 111

RECOMMENDED READING LIST:

Getting Started with hapi.js – John Brett

MATERIALS FEES:

Node.js Hosting Service

Laptops: Not required but it's highly recommended that you bring yours to class. We will use software that's both OS X and Windows compliant.

Software:

- Brackets: <http://brackets.io/> - free

ASSIGNMENTS/COURSEWORK:

Due date of assignments will be assigned in class.

Practice (10 total)

Consist of small sketches covering the day's lesson

50 points total

5 points each

Midterm Project

Create an interactive web application. The application should take users through multiple routes and responses. The user should ultimately be given a summary of their experience.

20 points total**Midterm and Final Progress Report (2 total)**

A short report on the work done for your Midterm and final project.

10 points total

5 points each

Code Plan (2 total)

Are pseudocode and logic breakdown of what you want your web application to do.

10 points total

5 points each

Final Project

An awesome interactive web application that mashes up multiple APIs and/or data points.

20 points total**GRADING/EVALUATION:**

Each assignment is worth up to a given amount of points.

<i>Grade</i>	<i>Points Required</i>
A	95
A-	90
B+	87
B	84
B-	80

C+	77
C	74
C-	70
D	60
F	0

ATTENDANCE POLICY:

Students are expected to attend each class and be on time. All students are responsible for material covered in the classroom regardless of his/her presence. Three or more unexcused absences will result in the deduction of one complete letter grade. Doctor's appointments, job-related activities, interviews, study sessions or other meetings during class are *not* an excused absence.

RELIGIOUS HOLY DAY POLICY:

It is the student's obligation to provide faculty members with notice of the dates they will be absent for religious holy days, preferably before the beginning of classes but no later than the end of the first three class days. Absences due to observance of religious holy days not pre-arranged within the first three class days may be considered unexcused and there is no obligation to allow any make up work, including examinations. Missing a class due to travel plans associated with a particular religious holy day does not constitute an excused absence. The University's complete Religious Holy Day Policy can be found in the current 2016-2017 bulletin.

HONOR CODE AND PLAGIARISM STATEMENTS:

Students enrolled in this course are expected to abide by the University of Miami Honor Code. The purpose of the Honor Code is to protect the academic integrity of the University by encouraging consistent ethical behavior in assigned coursework. Academic dishonesty of any kind, for whatever reason, will not be tolerated.

No honest student wants to be guilty of the intellectual crime of plagiarism, even unintentionally. Therefore, we provide you with these guidelines so that you don't accidentally fall into the plagiarism trap.

Plagiarism is the taking of someone else's words, work, or ideas, and passing them off as a product of your own efforts. Plagiarism may occur when a person fails to place quotation marks around someone else's exact words, directly rephrasing or paraphrasing someone else's words while still following the general form of the original, and/or failing to issue the proper citation to one's source material.

In student papers, plagiarism is often due to...

1. turning in someone else's paper as one's own
2. using another person's data or ideas without acknowledgment
3. failing to cite a written source (printed or Internet) of information that you used to collect data or ideas
4. copying an author's exact words and putting them in the paper without quotation marks
5. rephrasing an author's words and failing to cite the source
6. copying, rephrasing, or quoting an author's exact words and citing a source other than where the material was obtained. (For example, using a secondary source which cites the original material, but citing only the primary material. This misrepresents the nature of the scholarship involved in creating the paper. If you have not read an original publication, do not cite it in your references as if you have!)
7. using wording that is very similar to that of the original source, but passing it off as one's own.

The last item is probably the most common problem in student writing. It is still plagiarism if the student uses an author's key phrases or sentences in a way that implies they are his/her own, even if s/he cites the source.

In creative assignments, plagiarism is often due to...

- Copying, sampling, or modifying someone else's media or code without attribution or doing so when original work is expected or required for the assignment.
- Using stock imagery or media from a Creative Commons source without proper attribution.
- Removing source code licensing and attribution information and passing it off as your own.
- Using media without knowledge or documentation of copyrights, licensing, and other use restrictions.

COURSE TOPICS OUTLINE:

This is a general outline and is subject to changed based on learning pace. Extra time will be spent on areas of general interest and need. Check class website for assignments and updated schedule.

Week 1 - Introduction to Web (Jan 17th)

Class Overview.

- Introduction to the Web
- Git Overview
- Basic html/CSS
- Building a form

Week 2 - Introduction to Front-End (Jan 24th)

- Building Forms
- Introduction to Bootstrap

Week 3 – Introduction to Javascript/Node (Jan 31st)

- Basic Javascript – DOM Manipulation
- Installing Node
- Setting up Work Environment

Week 4 - Routing (Feb 7th)

- Hapi.js
- Routing

Week 5 – Submitting Forms (Feb 14th)

- Submit Form
- Retrieving Responses
- Intro to Ajax

Week 6 - ORM (Feb 21st)

- Sequelize

Week 7 - ORM (Feb 28th)

- Sequelize continued

Week 8 – Creative Outputs/Midterm Workday (Mar 7th)

- Chart.js
- Google Charts
- High Charts
- P5.js

Week 9 - Spring Break (Mar 14th)

Week 10 – Midterm (Mar 21st)

Week 11 – Uploading (Mar 28th)

- Uploading Midterm
- Working with data/json

Week 12 – APIs (Apr 4th)

- Using APIs
- Twitter
- Flickr
- Rita

Week 13 – Websockets (Apr 11th)

Week 14 – Final Workshop (Apr 18th)

Week 15 - Final Workshop (Apr 25th)

Tear off and return with information required below:

STUDENT ACKNOWLEDGEMENT:

I HAVE RECEIVED AND READ THE SYLLABUS FOR CIM 593-693-1R. I HAVE COMPLETED THE PREREQUISITE COURSES LISTED IN THE SYLLABUS OR HAVE HAD THE PROFESSOR SIGN BELOW TO CERTIFY A WAIVER OF THE PREREQUISITES.

SIGNED: _____

PRINT NAME: _____

DATE: _____

PROFESSOR PREREQUISITE WAIVER (IF NEEDED) _____