# CS533: Experimental Methods in Computer Science - Part 2

#### Matthew Fricke

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E-mail: mfricke@unm.edu

Office Hours: Farris 3330 M 10-11:45am Class Hours: T/Th 10:00-11:15pm

Teaching Assistant: Warren Craft

Email: wdcraft@unm.edu

This is a three credit hour course consisting of two 75 minute lectures per week.

Mailing List: Subscribe to cs533@cs.unm.edu

## **Course Description**

This course explores the design, experimentation, testing, and pitfalls of em- pirical research in Computer Science. In particular, students will learn how to use a data-driven approach to understand computing phenomena, formulate hypotheses, design computing experiments to test and validate or refute said hypotheses, evaluate and interpret empirical results. Overall, the goal of this course is to provide the students with the foundations of rigorous empirical research.

#### 1 Policies

There will be a single exam make up time for both the midterm and final exams. The make-up will be on Saturday, May 13th at 8:00am in my office. The make up exam will be different, but at least as difficult, as the regularly scheduled exams.

### 2 UNM Resources for Students

- Student Health and Counseling (SHAC): 505.277.3136 (24-hr number)
- Online writing support center: http://caps.unm.edu/services/online-tutoring/online-writing-lab.php

## 3 Lectures

- Lecture 1: Scientific Method and Inductive Reasoning
- Lecture 2: Experimental Design
- Lecture 3: Regression Analysis
- Lecture 4: Experimental Computer Science
- Lecture 5: Charts and Plots
- Lecture 6: Analysis of Variance
- Lecture 8: Non-Parametric Tests