

**Professor:** Dr. Thomas Fisher

**Office:** 305B Upham Hall

**Telephone:** (513) 529-2176

**Email:** [fishert4@miamioh.edu](mailto:fishert4@miamioh.edu) (best)

**Office Hours:** MW 11:25-11:55 (just this class)  
MW 3:00-4:00 (general office hours)  
By appointment

**Graduate** Hollin (Ying) Han [hany9@miamioh.edu](mailto:hany9@miamioh.edu)

**Assistant:** 301 Upham Hall  
TuTh 10:00-11:30 (office hours)

**Class Structure:** On MF we will be covering the theoretical and conceptual concepts of regression analysis. You can typically expect written notes but may also include data examples. On Wednesdays we will meet in UPH 316 (computer lab) where we will be applying the material we learn. We will primarily use the statistical software R (RStudio) but I plan to include some elements of SAS as well.

**Class Materials:** Notes. Occasionally your textbook or laptop will be handy

**Textbook:** [Applied Linear Statistical Models](#) by Nachtsheim, Neter and Kutner

**Bulletin** Linear regression model, theory of least squares, statistical inference procedures,  
**Description:** general linear hypothesis, partial F tests, residual analysis, regression diagnostics, comparison of several regressions, model adequacy, and use of statistical computer packages.

**Exams:** Two midterms and cumulative final exam will be given. Exams may consist of an in-class and take-home portion. Planned dates:

Exam 1 - **Friday, October 6** (in class), October 6-9 (take-home)

Exam 2 - **Friday, November 17** (in class), November 17-20 (take-home)

Final - **Wednesday, December 13, 10:15--12:15** (in-class), finals week (take-home)

**Assignments:** Assignments will be given throughout the semester primarily in the form of homework assignments, although quizzes, lab and in class assignments may be given. I expect to give about one dozen assignments during the semester. The assignments will cover both theoretical and application perspectives of the covered material. STA 563 students can expect extra problems and material.

**Data Analysis** A semester long project will be assigned in the next few weeks which involves a

**Project:** full analysis of some interesting data. There will be several milestones/grades comprising this project with some parts comprised of group work.

**Reading Project:** A short literature review assignment will be assigned roughly midway through the semester. This *project* will consist of reading a topic and giving a short presentation to the class.

**Attendance:** The pace of this class is such that it will not be advisable to miss any sessions. If you know you will be absent, please inform me in advance. When you are absent, it

will be your responsibility to contact another student for the notes and announcements. While attendance does not factor into your grade, I may take attendance for my own records. You are expected to be an active participant for the entire 55-minute class. Indications that this is not happening include sleeping, surfing the web or instant messaging on your laptop, text-messaging on your cell-phone, studying for another class, etc. Please turn your cell phone to silent before class. Students are expected to wait quietly for 15 minutes after class is scheduled to begin. If I have not yet appeared the students are free to leave.

**Letters of Accommodation:** If you have a letter stating specific testing accommodations to which you are entitled, please come by my office to discuss the accommodations that you will need and to give me a copy of the letter. Even if you do not anticipate using any accommodations, it is a good idea to turn in the letter as soon as possible. Please note that unless I have at least one week's notice I will be unable to provide any accommodation on an exam

**Prerequisites:** Mathematics background: *MTH 222* or *MTH 231* (some linear algebra)  
Probability Course: *STA 401/501* with a C or better (or equivalent; e.g., *STA 664*)

**Student Code of Conduct:** Any violations of Academic Integrity within the Student Handbook will not be tolerated. This includes cheating, plagiarism, storing information in a calculator, sabotage of another's work, disrupting class, using solutions found online, posting solutions online, to name a few. See the [Handbook](#) for a complete listing of the student code of conduct. All violations will be handled in accordance with established procedures and policies concerning student academic responsibility. See the [Bulletin](#) for additional details:

<http://miamioh.edu/academics/bulletin/>  
<http://www.miamioh.edu/handbook>

**Final Grades:** At the conclusion of the semester, final grades will be compiled using:

| Source                | Amounts |
|-----------------------|---------|
| Assignments           | 27%     |
| Data Analysis Project | 20%     |
| Reading Project       | 3%      |
| Midterm Exams         | 30%     |
| Final Exam            | 20%     |
| Total                 | 100%    |

Grades will be assigned based on:

|           |    |          |   |          |    |
|-----------|----|----------|---|----------|----|
| [97, 100) | A+ | [92, 97) | A | [90, 92) | A- |
| [87, 90)  | B+ | [82, 87) | B | [80, 82) | B- |
| [77, 80)  | C+ | [72, 77) | C | [70, 72) | C- |

|          |    |          |   |          |    |
|----------|----|----------|---|----------|----|
| [67, 70) | D+ | [62, 67) | D | [60, 62) | D- |
|          |    | [0, 60)  | F |          |    |

**Important Dates:**

Monday, September 4 - Labor Day (no class)

Friday, September 15 - Drop date (no grade on transcript)

**Friday, October 6** - Exam 1

**Friday-Monday, October 6-9** - Exam 1 Take Home portion

Friday, October 13 - Fall Break (no class)

Friday, October 20 - Midterm Grades available on Banner

Monday, October 30 - Withdraw date (W recorded on transcript)

**Friday, November 17** - Exam 2

**Friday-Monday, November 17-20** - Exam 2 Take Home Portion

Wednesday & Friday, November 22 & 24 - Thanksgiving Break (no class)

Friday, December 8 - Last day of classes (and final date to withdraw from university)

**Wednesday, December 13** - Final Exam