Professor:	Dr. Thomas Fisher
Office:	334E Upham Hall
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Email:	*fishert4@miamioh.edu* (best)
Office Hours:	MWF 3:30-4:00 (in the classroom)
	TuTh 10:00-11:30 (in office) and <u>by appointment</u>
Personal Website:	*http://www.users.miamioh.edu/fishert4/*
	and *Niihka* site
Class Materials:	Notes. Occasionally your textbook, calculator or laptop will be handy
Textbook:	<u>Probability & Statistics for Engineers & Scientists</u>, Walpole, Myers, Myers, Ye
References:	<u>Introduction to Probability and Statistics Using R</u> (free pdf) by Kerns

Bulletin Description: A first course in applied statistics including an introduction to probability, the development of estimation and hypothesis testing, and a focus on statistical methods and applications. Includes introduction to probability of events, random variable, binomial and normal distributions, mathematical expectation, sampling distributions, estimation, and hypothesis testing. Statistical methods include one and two sample procedures for means and proportions, chi-square tests, analysis of variance, and linear regression.

Topic Outline: The course will tentatively consist of 4 units/modules:
<u>Unit 1</u>: Probability, distributions, expected value, sampling distributions.
<u>Unit 2</u>: Statistics on a single sample, descriptive, graphical and inferential.
<u>Unit 3</u>: Statistics on multiple samples, introduction to regression.
<u>Unit 4</u>: Multiple regression and other modeling procedures.

Exams: Three exams will be given in the class (worth 30% total) and a cumulative final exam (worth 20%). Dates:

<u>Test 1</u> - Unit #1 material - **Wednesday, February 18**
<u>Test 2</u> - Unit #2 material - **Wednesday, March 18**
<u>Test 3</u> - Unit #3 material - **Wednesday, April 22**
<u>Final</u> - Cumulative - **Monday, May 11, 5:30-7:30pm**

Quizzes: Six quizzes will be given during the semester accounting for 25% of your grade. Typically they will cover about "half a test" and will be given between tests. No make up quizzes will be given.

Ungraded Homework: Daily homework will be given throughout the semester. This homework will not be collected but will allow you to practice problems on your own.

Graded Homework: Modern Probability and Statistics are performed using computer software. As such, 6 assignments (accounting for 25% of your grade) will be given during the semester that will complement the material in class and the ungraded assignments. These assignments will be a combination of written and computer based problems. Late assignments are not accepted.

Attendance: The pace of this class is such that it will not be advisable to miss any sessions. If you are absent from class, you are responsible for all missed material. <u>No make up quizzes, assignments or exams will be given</u>. If you know will be absent, please inform me in advance. 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: *Calculus I* or *Calculus II*.

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 and disrupting class. See the [Handbook](http://www.miamioh.edu/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](http://miamioh.edu/academics/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
Tests (3 in class)	**30%**

• Best Test Score
   • Median Test Score
   • Lowest Test Score
	10%
	15%
	5%

Quizzes (best 5 of 6)	**25%**
Homeworks (best 5 of 6)	**25%**
Final Exam (cumulative)	**20%**
Total	**100%**

Grades will be assigned based on:

[98, 100)	A+	[92, 98)	A	[90, 92)	A-
[88, 90)	B+	[82, 88)	B	[80, 82)	B-
[78, 80)	C+	[72, 78)	C	[70, 72)	C-
[68, 70)	D+	[62, 68)	D	[60, 62)	D-
		[0, 60)	F		