Professor: Dr. Thomas Fisher

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Email: *fishert4@miamioh.edu* (best)

Office Hours: MW: 11:00-11:40 & 2:00-3:00*
TuTh: 10:00-11:00* and <u>by appointment</u>   (*regular office will begin the week of Sept 9)

Personal Web Site: *http://www.users.miamioh.edu/fishert4/*

Class Materials: Textbook & notes. Occasionally a Calculator may be useful.

Text: <u>Applied Multivariate Analysis</u> *Sixth edition* by Johnson & Wichern

References: <u>An Introduction to Multivariate Statistical Analysis</u> by Anderson
<u>Methods of Multivariate Analysis</u> by Rencher & Christensen

Catalog Description: Study of multivariate normal distribution, estimation and tests of hypotheses for multivariate populations, principal components, factor analysis, discriminant analysis.

Topic Outline: Matrix Algebra Review, Multivariate Data, Multivariate Normal Distribution, Inference about the mean vectors, inference about the covariance, comparing multiple mean, principle components, factor analysis, discrimination and clustering.

Exams: Two inclass midterms will be given. They are tentatively scheduled for early October and before Thanksgiving. Exact dates will be determined at a later time.

Exams will be closed book and each will be worth 20% of your final grade.

Project: A take-home final exam project will be assigned towards the end of the semester. Details will be determined and provided at a later date.

Homework: Homework is a critical part of this course and will be given throughout the semester. Homework should be detailed enough to adequately demonstrate your solution. You may discuss homework problems with other students; however, the final work must be your own!! Late homework will not be accepted.

Attendance Policy: This is a graduate course and the pace 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 will often 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: STA 462/562, Graduate standing or permission of instructor.

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 Student 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.

http://www.miamioh.edu/handbook.pdf

Final Grades: At the end of the semester, the final grades will be compiled using the following:

Instrument	Amount
Graded Homework	40%
Midterm Exam 1	20%
Midterm Exam 2	20%
Final Exam/Project	20%
Total	100%

Grades will be assigned based on the following:

Percentage	Grade
[97, 100)	A+
[93, 97)	A
[90, 93)	A-
[87, 90)	B+
[83, 87)	B
[80, 83)	B-
[77, 80)	C+
[73, 77)	C
[70, 73)	C-
[67, 70)	D+
[63, 67)	D
[60, 63)	D-
[0, 60)	F