Professor: Dr. Thomas Fisher

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Office Hours: MW: 11:00-12:00. TuTh: 1:00-2:00 and by appointment

Personal Website: *http://www.users.miamioh.edu/fishert4/* and *Niihka* site

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

Textbook: Introductory Time Series with R by Cowpertwait and Metcalfe

References: Time Series Analysis: With Applications in R by Cryer and Chan

Bulletin Description: Introduction to quantitative prediction techniques using historical time series. Involves extensive use of interactive computing facilities in developing foreca models and considers problems in design and updating of computerized foreca systems. Cross-listed with CSE.

Topic Outline: Basics of Time Series: trends, seasons, errors; Ideas of forecasting models; Connections to Regression; Serial correlation & modeling of Serial correlation Autoregressive-Moving Average Models; Nonstationary models: ARCH/GARCH, long memory processes; Spectral Domain Analysis

Exams: Two exams will be given in the class, a midterm and final. Both will be comp of an inclass and take-home component. Tentative Dates:

Midterm - Friday, March 14 (in class), March 14--17 (takehome)
Final - Monday, May 12. 12:45--2:45 (in class), finals week (takehome)

Homework: Homework will be given throughout the semester and will count for a substan part of your final grade. I expect to give roughly 6 or 7 homework assignment during the semester. The homeworks will cover both theoretical and applicatio perspectives of the covered material. STA 583 can expect an extra homework problem or two per assignment.

Projects: A project will be assigned towards the end of the semester, details will be disclosed at a later date. It will essentially be a large cumulative homework assignment. STA 583 students will be given a second project as part of the cou It will cover some additional theoretical concepts and applications.

Attendance: The pace of this class is such that it will not be advisable to miss any sessions. you know you will be absent, please inform me in advance. When you are abs 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 fo the entire 55-minute class. Indications that this is not happening include sleepi 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 silen 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 wi need and to give me a copy of the letter. Even if you do not anticipate using ar accommodations, it is a good idea to turn in the letter as soon as possible. Plea note that unless I have at least one week's notice I will be unable to provide ar accommodation on an exam

Prerequisites: STA 401/501 or permission of the 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 calculato sabotage of another's work and disrupting class. See the Student Handbook fo complete listing of the student code of conduct. All violations will be handled accordance with established procedures and policies concerning student acade responsibility.

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

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

Source	483 Amounts	583 Amount
Homework	40%	30%
Projects	20%	30%
Midterm	20%	20%
Final Exam	20%	20%
Total	100%	100%

Grades will be assigned based on:

[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		