Professor:	Dr. Thomas Fisher
Office:	334E Upham Hall
Telephone:	(513) 529-2176
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Office Hours:	MWF 12:30-1:00 (after class) TuTh 10:00-11:30 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:	<u>Time Series Analysis: With Applications in R</u> by Cryer and Chan
References:	<u>Introductory Time Series with R</u> by Cowpertwait and Metcalfe
Bulletin Description:	Introduction to quantitative prediction techniques using historical time series. Involves extensive use of interactive computing facilities in developing forecasting models and considers problems in design and updating of computerized forecasting systems. Cross-listed with CSE.
Topic Outline:	Basics of Time Series: trends, seasons, errors; Ideas of forecasting models; Time Series Regression; Serial correlation & modeling of Serial correlation: Autoregressive-Moving Average Models; Nonstationary models: ARCH/GARCH, long memory processes; Spectral Domain Analysis
Exams:	A midterm and cumulative final exam (more weight on second half of class) will be given. Each exam will consist of an in class and take home portion. Planned dates: <u>Midterm</u> - **Monday, March 9** (in class), March 9--11 (takehome) <u>Final</u> - **Wednesday, May 13, 10:15--12:15** (in class), finals week (takehome)
Homework:	Homework will be given throughout the semester and will count for a substantial part of your final grade. I expect to give roughly 6 or 7 homework assignments during the semester. The homeworks will cover both theoretical and application 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 course. 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. 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: STA 401/501 or permission of the Instructor
STA 363 or 463 is highly encouraged

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 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	483 Amounts	583 Amount
Homework	40%	30%
Class Project	20%	20%
Graduate Project	---	10%
Midterm	20%	20%
Final Exam	20%	20%
Total	100%	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		