Subject Matter:

This course provides a graduate level introduction to time series econometrics. Emphasis is placed on understanding the tools used for analyzing data that evolves over time.

GauchoSpace site:
https://gauchospace.ucsb.edu/courses/course/view.php?id=20315

Prerequisites:

You should have had the first year graduate sequence in econometrics, Economics 241A/B/C.

Instructor:

Professor Dick Startz, startz@econ.ucsb.edu, office hours: Monday 2:00-3:00 or knock on door. Office: North Hall 3038.

Course Requirements:

There are three basic course requirements:

1. Do all the questions in the “Class Assignments” document. (Some of these are easy, some are quite hard and will take considerable time.) Be prepared to teach the answer to each question, including explaining how your Matlab code works. I will call on someone randomly to present each question (unless someone is looking sheepish, in which case they’re more likely to get picked.) Bring slides and code with you to each class! After class, whoever is called on should upload slides and Matlab to GauchoSpace.
   a. I expect graduate students to work together. You may also find useful code online. At the same time, you are supposed to do each assignment yourself—not using canned code.
   b. Questions are often due on the day that we discuss the underlying material. Looking ahead in the slides may be helpful.
   c. Each question is marked as to the lecture where it will be presented, but don’t be surprised if we fall behind.
2. Write a term paper. The term paper is due March 20 at 5:00pm. You can choose from three general types of topics: (1) A short research paper that uses time series techniques in a meaningful way; (2) An expository paper teaching some more advanced time series technique, generally with an illustrative application; or (3) A replication study, in which you reproduce a published time series paper—recoding programs, etc., as part of the replication.
   a. A one paragraph proposal is due to me Friday, February 9 at 8am. Feel free to submit earlier.
   b. The term paper is due March 24 at 5:00pm and must be in Microsoft Word or a pdf.
   c. Sign up for a 20 minute discussion slot in which the class will go through your rough draft on GauchoSpace.
   d. Post your “rough draft” to GauchoSpace three days before your paper is scheduled to be discussed.
   e. It is very tempting to go as late in the term as possible. But remember that you are going to get feedback from your classmates and from me that you can use to improve the final paper. Getting feedback early is an advantage.

3. Edit and discuss everyone else’s rough draft. Download the rough draft from GauchoSpace for editing and commenting. Comments should be constructive. They should not be “evaluative.” We will go around the room to give everyone a chance to make substantive comments (You’ll have about 90 seconds, so prep what you want to say ahead of time.)
   a. Provide printed copies of your comments at the class section where the paper is discussed. One copy to the author and one copy to me. Copy-editing type comments should be included in the printed copy but not discussed orally.
   b. Remember that you have a rough draft. Your goal is to be helpful to a classmate. And, of course, to impress me with how thorough and helpful you can be.

Textbooks:
There isn’t a required text book. The classic time series book is Time Series Analysis, by James Hamilton. This book is especially recommended for those wishing a more theoretical orientation.

Here are some other books. The ones marked with an asterisk have readings marked in the syllabus. Feel free to pick and choose what you would like to read. The book by Enders is more a master’s level book, but a really super introduction.

John Cochrane, Time Series for Macroeconomics and Finance, 2005,
Frank Diebold, Time-Series Econometrics: A Concise Course, edition 2017,
A somewhat random collection of other useful things you might want to read

(There are thousands and thousands of articles and books using or extending time series techniques. Rather providing a reading list, I’m just mentioning a few items to get you started. They’re in no particular order.)


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C - Cochrane
D – Diebold
DK – Durbin & Koopman
E – Enders
K – Kim and Nelson