Instructor: Peter Fuleky  
Office: 508 Saunders Hall  
Office Hours: anytime by appointment  
Email: fuleky@hawaii.edu

Class Location: Saunders 541  
Class Time: TR 3:00-4:15 pm  
Final Exam: Thursday 2:15–4:15 pm  
Prerequisites: ECON 321 or BUS 310 or NREM 310 or (MATH 251A and NREM 203) or (MATH 371 and MATH 373) or (MATH 471 and MATH 472)

Website: http://www2.hawaii.edu/~fuleky/econ427/econ427.html

Student Learning Outcomes:  
To be familiar with time series econometric methods for forecasting in business and economics, and to understand the statistical basis for these approaches. Topics include statistical methods for modeling and forecasting trend, seasonal and cyclical components of economic time series, multivariate regression models, forecast evaluation, and forecasting in the presence of unit roots. To be able to apply time series econometric forecasting methods to practical forecasting settings. To be able to use standard econometric modeling software for forecasting. To be able to successfully complete a model-driven forecasting project and present the methods and results to an educated audience.

Required Reading:  

More Required Reading (choose one):  
• Nate Silver: The Signal and the Noise  
• Charles Wheelan: Naked Statistics

Course Requirements:  
Grades for the course will be based on one midterm exam (20%), one comprehensive final exam (25%), problem sets (10%), a term project (30%), and participation (15%). Participation includes written quizzes (5%), oral recaps of previous class sessions, and contribution to class discussions (10%). Due dates are firm! Any problem set, project component, or other work submitted after the start of class on the day it is due will be marked down half a grade per day until I have received it.

Out-of-Class Communication:  
This term we will be using an online discussion board for out-of-class communication. The system is highly catered to getting you help fast and efficiently from classmates and myself. Rather than emailing questions to the teaching staff, I encourage you to post your questions on the discussion board for all classmates to see.  
Find our class page at:  
https://classroom.google.com/c/MTIyNTU5MDU1NFpa

Exams:  
The midterm and final exams must be taken at the scheduled dates and times. Except for medical emergency, I will not schedule makeup exams.

Problem Sets:  
Problem sets will include analytical lecture material and applications of forecasting methods. They will take a substantial amount of time, so plan ahead!

Forecasting Project:  
You will work on a forecasting model, in which you will review existing literature on
the behavior and determinants of the indicator, perform preliminary statistical assessment, develop a forecasting model, evaluate forecast performance, and write up your results. You will make forecast presentations in addition to the written report. I will provide you with detailed guidelines in a few weeks.

**Class Participation:**
Active participation helps to deepen understanding of course material. To facilitate this, I organize class in an informal lecture and discussion format, and I expect you to participate. You will be evaluated on your class attendance, your preparation, and your contribution to class discussions. Please be prepared for class. Read textbook chapters before I lecture on the material. Do not miss class. At the beginning of each class there will be a short quiz on the topics covered in the previous class session, and we will discuss one chapter of *The Signal and the Noise* per week (this will include short presentations by you).

**Econometric Software:**
We will use *R*, which is open source (free). *R* is the leading statistical environment for economic research with powerful analytical capabilities. Note, *R* is not a point-and-click software - it is more like a programming language. For more information on *R* and forecasting see [http://www.otexts.org/fpp/using-r](http://www.otexts.org/fpp/using-r).

**Grading:**
The overall course grade will be awarded according to the following schedule, applied to adjusted (curved) scores.

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<th>Grade</th>
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<tr>
<td>A+</td>
<td>At my discretion</td>
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<td>A</td>
<td>93 and above</td>
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<td>A-</td>
<td>90-92</td>
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**Academic Integrity:**
Academic dishonesty includes cheating and plagiarism, and may result in suspension or expulsion from the University.

Two practices that not all students realize may fall into the category of academic dishonesty are: (1) using the same material for more than one course, and (2) turning in work done by several students in a joint project as one student's own work. The rules apply equally to papers for courses taken during the same semester and to courses taken in different semesters.

If a student wishes to use the same material in papers or projects for more than one course, the student must obtain the advance permission of both instructors.

**Students with Disabilities:**
If you feel you need reasonable accommodations because of the impact of a disability, please (1) contact the KOKUA Program (V/T) at 956-7511 or 956-7612 in room 013 of the QLCSS, and (2) speak with me privatelto discuss your specific needs.