FALL 2017 - STAT 485 E100

APPLIED TIME SERIES ANALYSIS (3)

Class Number: 3558   Delivery Method: In Person

COURSE TIMES + LOCATION:

Mo 5:30 PM – 6:20 PM
AQ 3005, Burnaby

Th 4:30 PM – 6:20 PM
RCB 8100, Burnaby

EXAM TIMES + LOCATION:

Dec 7, 2017
7:00 PM – 10:00 PM
AQ 3182, Burnaby

INSTRUCTOR:

Richard Lockhart
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1 778 782-3264
Office: SC-K10561

PREREQUISITES:

STAT 285 or STAT 302 or STAT 305 or BUEC 333 or equivalent.

Description

CALENDAR DESCRIPTION:

Introduction to linear time series analysis including moving average, autoregressive and ARIMA models, estimation, data analysis, forecasting errors and confidence intervals, conditional and unconditional models, and seasonal models. This course may not be taken for further credit by students who have credit for ECON 484. Quantitative.

COURSE DETAILS:

Outline:

1. Autocorrelation, seasonality, and trends in time series and their impacts on standard statistical inference techniques.
2. Autoregressive models: definition, model formulation, and data analysis
3. Moving average models: definition model formulation, and data analysis
4. ARIMA models: definition, model formulation, and data analysis
5. Introduction to forecasting with linear time series models
6. Introduction to nonparametric fitting of trends and cycles to time series data

Grading

Assignments	20%
Midterm	30%
Final	50%

NOTES:

Above grading is subject to change.

Materials

REQUIRED READING: 2/2

Required Textbook:

Time Series Analysis with Applications in R (2nd ed.) by Jonathan D. Cryer and Kung-Sik Chan. Publisher: Springer

    Book is available on-line for free through the SFU Libarary
E-Book ISBN: 978-0-387-75959-3
Hardcover ISBN: 978-0-387-75958-6
Softcover ISBN: 978-1-4419-2613-5

DEPARTMENT UNDERGRADUATE NOTES:

Students with Disabilites:
Students requiring accommodations as a result of disability must contact the Centre for Students with Disabilities 778-782-3112 or csdo@sfu.ca

Tutor Requests:
Students looking for a Tutor should visit http://www.stat.sfu.ca/teaching/need-a-tutor-.html. We accept no responsibility for the consequences of any actions taken related to tutors.

REGISTRAR NOTES:

SFU's Academic Integrity web site http://students.sfu.ca/academicintegrity.html is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

Each student is responsible for his or her conduct as it affects the University community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the University. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the University. http://www.sfu.ca/policies/gazette/student/s10-01.html

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