Term Information

Effective Term	Summer 2021
Previous Value	*Summer 2012*

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

To allow the course to be offered at a distance.

What is the rationale for the proposed change(s)?

To give flexibility in our ability to offer masters-level elective courses (in person or online).

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

None

Is approval of the requrest contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Statistics
Fiscal Unit/Academic Org	Statistics - D0694
College/Academic Group	Arts and Sciences
Level/Career	Graduate
Course Number/Catalog	6550
Course Title	The Statistical Analysis of Time Series
Transcript Abbreviation	Stat Time Series
Course Description	To develop knowledge of time series processes, modeling (identification, estimation, and diagnostics), and forecasting methods. Experience is gained in the statistical theory so as to be able to analyze time series data in practice.
Semester Credit Hours/Units	Fixed: 2

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	100% at a distance
Previous Value	*No*
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: 6201, 6302, or 6802, and 6450 or 6950; or permission of instructor.
Previous Value	*Prereq: 6201, 6302 (623), or 6802 (622), and 6450 (645) or 6950; or permission of instructor.*
Exclusions	
Previous Value	Not open to students with credit for 635.
Electronically Enforced	No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	27.0501
Subsidy Level	Doctoral Course
Intended Rank	Masters, Doctoral

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Understand and use appropriate statistical tools to analyze time series data.
- Define the concepts of stationarity and autocovariance for time series processes.
- Understand the statistical properties of autoregressive moving average processes.
- Derive the equations underlying time series prediction and forecasting.
- Examine whether the assumptions underlying a time series analysis are reasonable.
- Recognize the strengths or weaknesses of various time series inferences.

Previous Value

Content Topic List

- Introduction and motivation for time series analysis
- Time series models and stationary processes, with examples
- Estimating mean, autocovariance, and autocorrelation functions
- Methods for estimating and eliminating trend and seasonality
- Statistical properties of stationary processes and linear processes
- Autoregressive and moving average processes
- Forecasting stationary time series
- Defining and modeling autoregressive moving average processes
- Nonstationary and seasonal processes
- Regression with time series errors
- Nonlinear processes

Sought Concurrence No

Attachments

- STAT6550-SU2021-DL.docx: DL syllabus

  (Syllabus. Owner: Craigmile,Peter F)

- STAT6550-SU2021-InPerson.docx: In person syllabus

  (Syllabus. Owner: Craigmile,Peter F)

- DL checklist Stat 6550.docx: ASC Tech DL checklist

  (Other Supporting Documentation. Owner: Craigmile,Peter F)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Craigmile,Peter F	11/18/2020 03:21 PM	Submitted for Approval
Approved	Craigmile,Peter F	11/18/2020 06:53 PM	Unit Approval
Approved	Haddad,Deborah Moore	11/18/2020 07:03 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Vankeerbergen,Bernadette Chantal	11/18/2020 07:03 PM	ASCCAO Approval