

**Economics 8838-001**

Spring 2016

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Location: Economics 5

Meeting Times: TTH 2:00-3:15

Office Hours: TTH 12:30-2:00

**Course Description:**

## **Tentative Course Outline:**

1. Theory of Stochastic Processes
  - a. Stochastic Processes and Dependence
    - i) Basic concepts and convergence
    - ii) Independence and stationary
    - iii) Ergodicity and mixing
    - iv) Strong and uniform mixing
  - b. Mixing
    - i) Mixing sequences and mixing inequalities
    - ii) Sufficient conditions for strong and uniform mixing
  - c. Martingales
    - i)

- b. Asymptotics for Dynamic Models
  - i) Limit results for M.D. processes and applications to ARMA processes
  - ii) Limit results for mixing and NED and applications to ARMA processes
- 5. Spatial Dependence
  - a. Spatial Autoregressive (SAR) Models
  - b. Spatial Mixing and NED

### **University Policies:**

University policies regarding classroom behavior are available at <http://www.colorado.edu/policies/classbehavior.html> and at [http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\\_code](http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code)

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University policies regarding Sexual Harassment and Amorous Relationships are available at <http://www.colorado.edu/odh/>. The Office of Discrimination and Harassment can be reached by telephone at 303-492-2127. The Office of Judicial Affairs can be reached at 303-492-5550.