AGEC 676—Frontiers Course in Markets and Information  
Department of Agricultural Economics  
Texas A&M University  

Part I (Weeks 1-7)

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Class Hours: (this may change; please e-mail me before start date)  
8:00-9:15 am, Tuesdays and Thursdays, ZACH 128A

Course Description:
Modern econometric methods are used to study causal relationships among observational data from markets observed in time sequence. Recent advances in modeling causal structures and their application markets are a major focus of this module. Upon successful completion of the course the student will have the ability to model observational data using vector autoregressions, error correction models, with directed acyclic graphs.

Prerequisites:
ECMT 676 (General Linear Model)  
AGEC 661 (Applied Econometrics)

Texts:
Required:

Helpful for your Professional Career:


Evaluation of Student Performance:
Final Exam (for this component) 100%
OUTLINE

Weeks 1, 2, 3, and 4: Directed Acyclic Graphs (DAGs)

(Lectures from Spirtes, Glymour and Scheines and Pearl)

- D-separation
- Colliders
- PC algorithm
- GES Algorithm
- Identification
- Back-door paths
- Front-door paths
- Instrumental Variables
- Policy and DAGs
- PC
- GES

Weeks 5, 6, and 7: Time Series Analysis

(Lectures from Bessler’s Notes and Hamilton and Juselius)

Vector Autoregressions

- Number of Lags
- Likelihood ratio test
- Statistical loss functions
- Recursive Residuals
- Estimation of Unrestricted VARs
- Innovation Accounting
- Choleski Factorization
- Bernanke Factorization
- DAG ordering
- Error Correction

ADA Policy Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building. The phone number is 845-1637.

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As commonly defined, plagiarism consists of passing off as one’s own ideas, work, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty.”

Cheating on Examinations and Homework

I have found graduate students cheating on examinations. I will assign a grade of zero to any student found cheating on an exam. This will result in a “D” or “F” as a final grade; as it is virtually impossible to recover, even a final grade of “C” from a zero on an exam. A course grade of “D” or “F” will almost surely mean you will be dropped from further graduate studies here in Agricultural Economics or any other program here at TAMU.

As requested and stated in the following: Essential Elements for Class Syllabuses
Faculty Senate and University Curriculum Committee, Summer 2003
Fuller Bazer, September 16, 2003 per COALS UPC, Thursday, September 11, 2003