

**University of Wyoming**  
**College of Business**  
**Department of Economics and Finance**

**ECON 5360**  
**Advanced Econometric Theory II**  
**TTh 1:20-2:35**  
**Bugas Seminar Room**  
**Spring 2009**

**Instructor:** Dr. David Aadland

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**Office Hours:** TR 11:30 – 1:00

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**Class Homepage:** <http://www.uwyo.edu/aadland/classes/econ5360/>

**Course Description:**

This course will cover important topics in advanced econometric analysis such as: (1) heteroskedasticity; (2) serial correlation (3) cross-section time series pooling; (4) systems of regression equations; (5) generalized method of moments; (6) qualitative or limited dependent variables; and (7) time series econometrics.

**Course Prerequisites:** ECON 5350.

**Primary Text:**

*Econometric Analysis* by William H. Greene (5<sup>th</sup> edition)

**Course Objectives:**

The primary objective of this sequence is to offer an advanced introduction to econometric theory and practice. Upon completion of this sequence you should be able to (i) comprehend most of the applied econometrics found in scholarly journals and (ii) initiate applied econometric analysis within your own research program.

**Course Requirements:**

- Computer Software Package. We will be using GAUSS extensively throughout the course. GAUSS is a matrix-based language that is extremely flexible and allows the user to directly program routines that are often unobserved in "black-box" software packages.
- Examination. There will one midterm exam.

- Problem Sets. There will be a total of approximately five problem sets, which will be made available on our class webpage. These assignments do not need to be turned in, will not be graded, and are provided as a resource to help you understand the material.
- Research Project. See <http://www.uwyo.edu/aadland/classes/econ5360/researchproject.pdf>.

**Grading:**

The examination, problem sets and the research paper will be weighted as follows:

Midterm Exam	(100 pts)	33.3%
Research Project	(200 pts)	66.7%
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	(300 pts)	100%

**Attendance Policy:** Attendance is not mandatory but expected.

**Academic Dishonesty :**

UNIREG 802, Revision 2, defines academic dishonesty as “an act attempted or performed which misrepresents one’s involvement in an academic task in any way, or permits another student to misrepresent the latter’s involvement by assisting the misrepresentation.” Academic dishonesty will not be tolerated in this class; any instances will be referred to the university’s established procedure for judging such cases, with severe penalties as found appropriate.

**Disclaimer:**

Subsequent changes may be made to any aspect or detail of this Syllabus if and when necessary. Any changes will be announced in class as soon as practical.

**Course Outline (tentative):**

Chapter 9.	Nonlinear Regression Models
Chapter 10.	Nonspherical Disturbances
Chapter 11.	Heteroscedasticity
Chapter 12.	Serial Correlation
Chapter 13.	Panel Data
Chapter 14.	Systems of Regression Equations
Chapter 15.	Simultaneous Regression Models
Chapters 16-18.	Alternative Estimation Frameworks
Chapters 19-20.	Time-Series Models
Chapters 21-22.	Limited and Qualitative Dependent Variable Models