Time: (TTH: 10:00 AM -11:15 AM)   University of Nevada, Las Vegas
Room: BEH 110   Department of Economics
                                         Econ 495, Seminar in Economic Research
                                         Fall 2016

Objective:
This course is designed as a capstone course for economics majors. It reviews the major theories and econometric tools used by professional economists. Students are encouraged to attend Friday Economics Seminars with faculty and graduate students. The course is organized in three parts. The first part covers basic statistics and multiple regression models. The second part deals with econometric modeling based on cross section and panel data and the last part treats modeling dealing with time series data. Prerequisites are Econ 301, Econ 302, Econ 362 and Senior Standing.

Learning Outcomes

Students who successfully complete this course will be able (i) to gain hands-on experiences in building econometric models, (ii) to build their own model with their own ideas and data sets, (iii) to enhance their ability to work with the econometric software STATA and large-size data sets and (iv) to acquire the knowledge and appreciation to further their education in a world of increasing demand for empirical economic analysis.

Assessment
Each student is expected to compile a portfolio of course materials that include a cover letter, a resumé, a number of class projects and a term paper. The class projects and the term paper will require the use of large data sets and familiarity with EXCEL and STATA statistical software packages. Assigned projects and term paper are expected to be submitted on due dates. Each individual student is required to prepare a term paper on a topic of his or her choice with my approval. The paper should be an independent piece of empirical work involving aspects of specification, testing hypothesis, and estimation. Each student is expected to present the key findings of the paper to the whole class. The last two weeks of the semester will be used for the presentation of the term project by each student. Attendance will be mandatory during these presentations.

Textbook:
Lee C. Adkins and Carter Hill (2011): "Using STATA for Principles of Econometrics" (Willey: Fourth Edition).

STATA Software (student version).

Grading Policy: Final grade will weight a set of econometric projects by 40%, the term paper by 40% and the oral presentation of the term paper by 20%.

Approximate Grade Distribution:

Percent	Grade
90%	Borderline A-
80%	Borderline B-
70%	Borderline C-
60%	Borderline D-

Relevant University Policies:

Academic Misconduct—Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the *Student Academic Misconduct Policy* (approved December 9, 2005) located at: https://www.unlv.edu/studentconduct/student-conduct.

Copyright—The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/provost/copyright.

Disability Resource Center (DRC)—The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

Religious Holidays Policy—Any student missing class quizzes, examinations, or any

other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=6&navoid=531.

Transparency in Learning and Teaching—The University encourages application of the transparency method of constructing assignments for student success. Please see these two links for further information:
https://www.unlv.edu/provost/teachingandlearning
https://www.unlv.edu/provost/transparency

Incomplete Grades—The grade of I—Incomplete—can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving "I" grades in 500-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

Tutoring and Coaching—The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit http://www.unlv.edu/asc or call 702-895-3177. The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of the SSC (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TEB second floor.

UNLV Writing Center—One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/.

Rebelmail—By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary

ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. Emailing within WebCampus is acceptable.

Final Examinations—The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: http://www.unlv.edu/registrar/calendars.

Suggested Topics

Part I   **Multiple Regression Model**
> 1.   **Applied Multiple regression Analysis**
>> (i)   Presenting the descriptive statistical results
>> (ii)   Presenting the regression results
>
> 2.   **Applied regression Analysis: Extension**
>> (i)   Functional form
>>> . Linear and quadratics
>>> . Exponential and log
>>> . Dummy variables
>>
>> (ii)   More testing
>>> . Restrictions on coefficients
>>> . Testing nested and non-nested models
>>
>> (iii)   Problems in Regression
>>> . Multicollinearity
>>> . Specification errors
>>> . Heteroscedasticity

Part II: **Modeling Cross-Section Data**

> 1.   Hedonic Price Models
>> . Rosen-Freeman Approach
>> . Instrumental Variables approach
>
> 2.   Modeling Wage Equation
>> . Mincer Wage Equation
>> . Measuring discrimination
>
> 3.   Discrete Choice Models
>> · Linear Probability Model
>> · Logit Model
>> · Probit Model
>
> 4.   Modeling Panel Data
>> · Panel data with two periods
>> · Fixed Effect and random effect models
>> . Pooling cross section and time series data
>
> 5.   Instrumental Variables (IV) Regression
>> . Two-stage Least squares estimation
>> · The IV Regression Model
>> · Checking Instruments Validity

Part III: Modeling Time Series Data

1.   Dynamic Regression
. Serial Correlation
· Autoregressive distributed lag model
. Granger Causality

2.   Stationary and Non-Stationary Time Series Stationary and Non-Stationary Series
. Stationary stochastic process
· Unit Root Tests for Stationarity
. Cointegration Tests
. Error Correction Models

3.   Applied Time Series Modeling
. Money Demand
. Purchasing Power Parity
. The Fisher Hypothesis
. The Saving-Investment Correlation Puzzle

<u>**Important Due Dates**</u>

Project 1:	**September 22**
Project 2:	**October 13**
Project 3:	**October 27**
Project 4:	**November 17**

<u>**Term Paper Presentation Days:**</u>
November 22, 28
December 1, 6

<u>**Other important Matters**</u>

Monday, September 5: Labor Day Recess
October, 18-19: Presidential debate (Recess)
Friday, October 31: Nevada Day Recess
Drop Day: November 04
Wednesday, November 11: Veteran Day Recess
November 24-25, Thursday-Friday: Thanksgiving Day Recess
Thursday, December 15: Final Exam
Tuesday, December 120: Final grades are due

Readings

Blau, F. and Kahn, L. "Gender differences in Pay" *Journal of Economics Perspectives.* Vol. 14 (4), Fall 2000: 75-99.

Cotton, J. "On the Decomposition of Wage Differentials" *The Review of Economics and Statistics.* Vol. 69, 1988:236-243.

Jaeger D. and Page, M. "Degrees Matter: New Evidence on Sheepskin Effects in the Returns to Education" *The Review of Economics and Statistics.* Vol. 78, 1996: 733-740.

Munnell,A., Tootell, G., Browne L., and McEneaney J. "Mortgage in Boston: Interpreting HMDA Data," *American Economic Review.* March 1996 (86): 25-53.

Ladd, H. "Evidence on Discrimination in Mortgage Lending" *Journal of Economic Perspectives.* Vol. 12, (2) Spring 1998: 41-62.

Palmquist, R. "Estimating the Demand for the Characteristics of Housing." *The Review of Economics and Statistics.* 66, 1984: 394-404.

Rosen, S. "Hedonic prices and Implicit Market: Product differentiation in Pure Competition." *Journal of Political Economy.* 82, 1974: 34-55.

Solow, R. "A Contribution to the Theory of Economic Growth." *The Quarterly of Economic Growth."* Vol. 29, 1956: 65-94.

Stanley S. and Tschiraht, J. "Hedonic Prices for a Nondurable Good: The case of Breakfast Cereals." *The Review of Economics and Statistics.* 73, 1992: 73: 537-541.

<u>**Important Dates**</u>

> **Mid-term Exam:** <u>March 14</u>
> **Drop Day:** <u>March 23</u>
> **Oral Examination:** April 23 – May 2
> **Final Exam:** Tuesday, May 14, 1:00PM-3:00PM

Holidays:

> ˙ **February 18** (Washington's Birthday Recess)
> ˙ **March 25-30** (Spring Break Recess)
> . **May 21** (Final grades due)

You are ultimately responsible for knowing and fulfilling all the requirements of your desired degree. Please read and understand the relevant sections of The Undergraduate Catalog, and contact the Undergraduate Advising office (business.unlv.edu/advising) with any questions. Also, you will need to review the prerequisites of all courses required for your degree and plan ahead to ensure that you will have satisfied the prerequisites in time to take the courses on schedule for your planned graduation date. Prerequisites will not be waived to facilitate graduation timing issues.