SYLLABUS
Niagara University
College of Business Administration, Department of Economics & Finance

Semester:	Fall 2016
Course Number and Section:	640
Course Title:	Econometrics
Credit Hours:	3

Classroom:	ACAD 230
Meeting Times:	Thursday 6-8:45pm
Required Text:	*Introductory Econometrics: A Modern Approach¸* 6th ed., Jeffrey M. Wooldridge, ISBN-10: 130527010X, ISBN-13: 9781305270107 (e-book options are available)
	Using the fifth edition should work as long as you check with a classmate to make sure you have the right homework questions. I will not do this for you.
Other Required Materials:	http://www.urfie.net/
	This is a free e-book that is a companion to the Wooldridge text. There is a link on the site if you would like to purchase a (relatively cheap) hard copy.
Prerequisites:	There are no formal prerequisites for this course. However, every course builds on some knowledge. This course requires knowledge of basic calculus and statistics. If you do not know what covariance means, what a sampling distribution is, or how to find the derivative of a quadratic function, then this course will be difficult for you.

Instructor Information:

Name:	Randy Cragun
Office Hours:	T 1-2pm, W 2:30-4:30pm, Th 1:30-4:30pm
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This Course uses Canvas On-Line Software: No

University Mission Statement:
Niagara University educates its students and enriches their lives through programs in the liberal arts and through career preparation, informed by the Catholic and Vincentian traditions.

College of Business Mission Statement:
Guided by Catholic and Vincentian traditions, we prepare current and future business professionals to learn, serve, and lead with integrity and live an exemplary life.

College of Business Learning Outcomes:
- Students will demonstrate effective presentation skills.
- Students will demonstrate effective writing skills.
- Students will demonstrate analytical skills.
- Students will develop valuable employment skills through internships, and community service.

Departmental Mission Statement:
Guided by the College of Business Administration mission, the undergraduate program creates and disseminates knowledge, fosters rich learning experiences, empowers student achievement, and inspires professional engagement in the global society.

Student Learning Outcomes
1. Graduates will have effective written communication skills
2. Graduates will have effective oral communication skills
3. Graduates will be able to evaluate and understand ethical issues in business decisions
4. Graduates will demonstrate the ability to analyze information and apply critical thinking skills
5. Graduates will be proficient in using the appropriate technology and information resources for their field
6. Graduates will demonstrate knowledge of the field in their concentration or major

Course Description:

The objective of this course is to prepare students for empirical work in economics. Specifically, topics covered will include basic data analysis, regression analysis, testing, and forecasting. Students are provided the opportunity to use economic data to test economic theories. We will utilize computer software in all facets of our approach. This is believed to be a more applied course. Ultimately knowing the limits of software packages and what theories mean for empirical analysis will be stressed.

Course Learning Outcomes:
Students will:
1. Be able to identify poor scientific and statistical reasoning in real-world examples
2. Be able to perform the practical steps of estimating econometric models
3. Know when various models would be appropriate and be able to build models to test a wide array of questions (see the outline of topics for the specific classes of models)
4. Know the weaknesses of models and estimation methods
5. Be able to identify patterns in economic data
6. Be able to "clean" data sets and identify potential problems in data
7. Be able to communicate statistical analysis and results clearly
8. Be able to translate descriptions of methods from academic papers into reproducible steps
9. Know where to look for various kinds of data
10. Be able to identify what kinds of data would help answer a question

Assessment Measures:

Requirement	Weight	Course	CBA	Department
Research project	55	All	1, 2, 3	All
Group presentation	15	1, 3-8, 10	1, 3	2-6
Other assignments	30	1-7, 9-10	1, 2, 3	All

Attendance Policy:

Attendance is mandatory. Missing more than three class periods will result in a reduction in your grade. Every class missed after the first three will reduce your grade by half of one letter grade (e.g. a low B would become a C, but a high B would become a C only after the fifth absence). Being significantly late or leaving early counts as half an absence (note what this does to the marginal benefit of coming late versus not coming—economics is everywhere). There may be student presentations on some days, and missing on those days will count as two absences.

Verifying your attendance is your responsibility. At the beginning of every class meeting, the class should give me one piece of paper with the names of everyone present. I will compare the number of names on that list to the number of people in the class that day and only accept it if those numbers match. If they do not match, then I will throw out the paper, so do not write down the name of your absent friend. I found that this method worked in the past and removes any incentive to cheat. If you are concerned about it, please let me know. You should keep track of your own absences rather than asking me how many you have.

Grading Policies and Procedures:

Your grade will be based on a final research paper (which counts as the final exam), a group presentation, and some weekly homework. The weekly homework will be a huge component of you learning. The following table illustrates the distribution of percents of your grade that would be assigned to each item.

Research Project	Homework	Group Presentation
55%	30%	15%

You can expect that 75% on an assignment or project represents the minimum for an A, 65% is approximately the minimum for a B, and 50% is approximately the minimum for a C. Pluses and minuses will be assigned on a case-by-case basis.

Individual research:
Throughout your training in economics you have been presented with theoretical or empirical relationships between economic variables. Your assignment is to construct an econometric model of a functional relation that is interesting to you, collect the relevant data, and estimate the model dealing with possible statistical problems that might arise. There are some projects that are likely to be less suitable than others, because of unavailable data or lack of interesting

testable hypotheses. Therefore, to guarantee that you are on the right track with a project, you are required to submit a one to two-page research proposal on or before February 16th. Your proposal should (1) identify the topic you will investigate and general questions to be addressed, (2) sketch a tentative model to be estimated, including the relevant variables in the model, (3) cite at least two papers that present a similar econometric model, and (4) identify your data sources, the nature of the sample (time series, cross section, panel), and the number of observations. In your proposal be clear what your units of measurement will be. For example, if you were to propose a model of wage determination, would you observe wages of individuals at a point in time, or would you model average wages in the US over time, or possibly average wages of states observed across states? Clear thinking about this issue is vital to developing a reasonable econometric model.

Once we have agreed on a project, you should collect data and begin estimation. You will probably want to try several alternative specifications of your model and undoubtedly encounter various statistical problems. An important part of the project is the testing and treatment of these various econometric problems, using procedures presented in the course. You should document your use of these procedures by submitting the relevant computer output with your paper.

The write-up summarizing your project should follow the format of empirical articles in economics journals. Typically, these papers include:
1. Overview of the research question; statement of objectives, hypotheses to test.
2. Presentation of theory and review of relevant theoretical work.
3. Discussion of related empirical work in the area; critique of this work and statement of how your research is a contribution.
4. Specification of model to be estimated; variable definitions; data sources.
5. Presentation of estimation results; estimated equations and summary statistics; diagnostic test statistics; discussion of tests and procedures for dealing with econometric problems
6. Substantive conclusions; implication of your results for theory and policy; comparison with other empirical results.

Your final paper is due December 10. Be sure to include supporting computer output, accompanied by emailing me the underlying data. It should be 8 to 12 pages long double-spaced in Times New Roman font (640 students 14 to 16), not counting tables and exhibits (which will follow the works cited) presented following the text with citations in commonly accepted APA format. Please note it will likely require additional pages for you to complete this project effectively, but these page counts are likely the minimum to reasonably cover the topic. I would like at least ten articles included in the works cited.

The breakdown of the grade for your final project is as follows:
Proposal (10 points_
Literature review draft (5 points)
Preliminary results (5 points)
Oral Presentation of final paper (20 points)
Written paper (50 points) – Due December 10. An evaluation rubric will be made available as a guide as we draw closer to the due date. Follow the broad guidelines mentioned above and listed in the course notes.

Group presentation:
You should form groups of 3 members. You will select a refereed journal article to present in class. I will provide a list of acceptable articles, but you may also find one and check with me if it is acceptable. You will need to get approval for your article choice even if it is from the list so that every group is presenting a different article. Thus you should try to choose early to get the one you want. You should plan on at least 10 minutes of material discussing their research design, research question, data utilized, summarizing and presenting the results. You can have a maximum of 40 minutes (including set-up, break-down, and questions). The group should be prepared to field questions from the audience.

Homework:
These will not be very important for your grade, but they are essential practice for you. Most of the work will come from the texts. Homework is due at the beginning of class. No late work will be accepted. **You must bring two copies of your homework to class**. One copy will be turned in to me, and the other copy will be used in class.

College of Business Citation Guidelines and Plagiarism Reminder

Niagara University business students are asked to use the APA citation style. We recommend the Cornell University guide which can be accessed at:
http://www.library.cornell.edu/resrch/citmanage/apa

We encourage you to use the "specific parts of a source" format found in the Cornell guide which includes author, year and page number in parentheses, i.e. (Smith, 2005, p. 42).

At the end of the Cornell APA style guide are formats for web sites, blogs, etc.

Please note that the APA style also requires a bibliography "Reference list" at the end of the paper in addition to internal parenthetical references.

Academic Integrity Reminder: These are the most common plagiarism problems seen at Niagara University among students referred to the Academic Integrity Board.   *Please strive to maintain the highest academic standards.*

- Submitting a paper or portion of a paper written by another student—in your own class, another class, or another school.

- Submitting a paper which has large blocks of non-cited text copied directly from written or on-line sources.

University Statement on Academic Integrity:
Academic honesty – being honest and truthful in academic settings, especially in the communication and presentation of ideas – is required to experience and fulfill the mission of Niagara University. Academic dishonesty – being untruthful, deceptive, or dishonest in academic settings in any way – subverts the university mission, harms faculty and students, damages the reputation of the university, and diminishes public confidence in higher education.

All members of the university community share the responsibility for creating conditions that support academic integrity. Students must abstain from any violations of academic integrity and set examples for each other by assuming full responsibility for their academic and personal development, including informing themselves about and following the university's academic integrity policy.

Violations of academic integrity include but are not limited to the following categories: cheating; plagiarism; fabrication; falsification or sabotage of research data; destruction or misuse of the university's academic resources, alteration or falsification of academic records; academic misconduct; complicity; and copyright violation. This policy applies to all courses, program requirements, and learning contexts in which academic credit is offered, including experiential and service-learning courses, study abroad programs, internships, student teaching and the like. Please refer to the undergraduate catalogue for Niagara University's policy on academic integrity or access the policy online, www.niagara.edu/academicintegrity.

Additional note from the instructor: I take academic integrity seriously. Every semester I have some students violate these standards, and they almost always are students who simply do not know how to produce their own ideas and give credit to others for theirs. It is your responsibility know academic ethical standards. For instance, rewording an article from *The Economist* (putting it "in your own words") without attribution is still plagiarism.

Inclusivity, Diversity & Support for Students at Niagara University

Niagara University supports a learning environment that fosters inclusiveness where diversity is respected and valued. It is expected that students in this class will respect differences and develop an understanding of how other people's perspectives, behaviors, and worldviews may be different from their own.

Students are always encouraged to meet with faculty as early as possible in the semester to discuss their needs or concerns. Students may also seek additional assistance from a variety of resources available on campus such as academic support, counseling services, disability services, etc. For more information on these resources, please visit http://mynu.niagara.edu/services

Course schedule:

The schedule of topics will almost certainly change.

	Topic	Due
Sep 8	R, review, goals, and data	
Sep 15	Experimental design, the scientific method, and the hard problem of economtrics	
Sep 22	Cross-section linear regression model	
Sep 29	Cross-section linear regression model	
Oct 6	Estimating the model	Proposal due (Oct 7)
Oct 13	Inference	
Oct 20	Multiple regression	Literature review draft (Oct 17)
Oct 27	Models with dummy variable regressors	
Nov 3	Difference-in-differences	
Nov 10	Instrumental variables	Initial results for paper (Nov 10)
Nov 17	Qualitative dependent variables	
Dec 1		Group presentations of extant research
Dec 8		Final paper due and paper presentations
Dec 16	Presentations	Final paper presentations