AS.440.606.81, Econometrics, Syllabus: Fall 2018 - Online

Instructor: Genevieve Briand   **Term Info:**   **Website:**
gbriand@jhu.edu   Sept. 5 – Dec. 18 (14 weeks)   blackboard.jhu.edu

Office Hours:
No appointment needed: Blackboard Discussion Board (instructor replies within 24 hours)
By appointment only: connect.johnshopkins.edu/gbriand1

Textbook/Software:
Wooldridge, J. 2016. Introductory Econometrics: A Modern Approach (6th edition). Cengage Learning.

(Earlier Cengage Learning/South-Western editions may be used.)
Microsoft Excel, for the 1st part of the semester/**Stata** (or **other software of student's choice**) for the 2nd part.

Course Description:
This course focuses on the application of statistical methods to the testing and estimation of economic relationships. After developing the theoretical constructs of classical least squares, common problems encountered when applying this approach are discussed, including serial correlation, heteroskedasticity, and misspecification. Techniques for dealing with these problems are then presented. The foundational concepts of regression analysis are first developed using cross-sectional data then extended to the contexts of time-series and panel data. Models with simultaneity and instrumental variables are also presented. *Prerequisites: 440.605 Statistics*

Grading Schema:
Following AAP guidelines, the following grading schema is adopted.

A+	98-100%	B+	88-89.9%						
A	94-97.9%	B	84-87.9%						
A-	90-93.9%	B-	80-83.9%	C	70-79.9%	F	below 70%		

Course Structure:
The course will be administered through the JHU Blackboard platform from which all relevant coursework will be made available. Students should log into Blackboard daily to check for announcements posted on the course homepage. The course is segmented into 14 weeks of instruction, during which students will be expected to complete assigned readings from the textbook and/or other sources, listen to recorded lectures with accompanying slides, and submit answers to an assigned problem set. For the purposes of the course, a week will begin at 00:01 am on Wednesday morning and end at 11:59pm on the following Tuesday evening. Students are free to view lecture materials and submit assignments at any time throughout the week. Students are expected to review problem set solutions/feedback, weekly, and compare them with their work to ensure they are correctly applying the concepts covered. Students will use the Blackboard discussion board to elicit further commentary on specific topics from the instructor and/or seek additional guidance on assigned problems. For one-on-one communication with their instructor, students should use email.

Grading:
Problem Sets: 40% altogether. Midterm & Final Exams: 30% each.

Problem Sets:
Problem sets will be assigned on a weekly basis throughout the term (with a total of 12). Students may feel free to collaborate on problem sets in small groups, though each student must submit their own set of answers. Students should not post solutions on the general discussion board for all to see. Answers to problem sets must be submitted through Blackboard by the end of week they are assigned (i.e. 11:59 PM Tuesday night). No late submission is accepted. No make-up problem set will be given.

Exams:
Two exams will be administered during the course. Exams will be cumulative with a focus on the most recent concepts presented. Microsoft Excel/Stata (or other software) will be required to complete some questions. Students will work individually on exams. Exams will have a time limit and students will be free to consult notes and textbooks during the examination. Completed solutions to midterm and final exams must be submitted through Blackboard. No late submission is accepted. No make-up exam will be given.

Course Schedule:

Week 1 **Sept. 5 – Sept. 11**	Introduction, Statistics and Matrix Algebra Review Chapter 1, Appendix B.1-B.4, Appendix D	Problem Set 1
Week 2 **Sept. 12 – Sept. 18**	Simple Regression Model Chapter 2	Problem Set 2
Week 3 **Sept. 19 – Sept. 25**	Simple Regression Model (Cont'd) Chapter 2	Problem Set 3
Week 4 **Sept. 26 – Oct. 2**	Multiple Regression Analysis: Estimation Chapter 3	Problem Set 4
Week 5 **Oct. 3 – Oct. 9**	Multiple Regression Analysis: Inference Chapter 4	Problem Set 5
Week 6 **Oct. 10 – Oct. 16**	Asymptotics, Further Issues Chapter 5, Chapter 6	Problem Set 6
Oct. 17 – Oct. 23	**Exam Period**	**Midterm Exam**
Week 7 **Oct. 24 – Oct. 30**	Binary Variables Chapter 7	Problem Set 7
Week 8 **Oct. 31 – Nov. 6**	Heteroskedasticity Chapter 8	Problem Set 8
Week 9 **Nov. 7 – Nov. 13**	Specification and Data Problems Chapter 9.1-9.2, 9.4	Problem Set 9
Week 10 **Nov. 14 – Nov. 18**	Time series, Serial Correlation Chapter 10, Chapter 11.1-11.3,	Problem Set 10
Nov. 19 – Nov. 25	*Thanksgiving Break Week*	
Nov. 26 – Nov. 27	Chapter 12.1-12.2, 12.5	
Week 11 **Nov. 28 – Dec. 4**	Panel Data Chapter 13, Chapter 14 (excluding 14.3)	Problem Set 11
Week 12 **Dec. 5 – Dec. 11**	Instrumental Variables, Simultaneity Chapter 15, Chapter 16	Problem Set 12
Dec. 12 – Dec. 18	**Exam Period**	**Final Exam**

University Policies:
This course adheres to all University policies described in the academic catalog. Please pay close attention to the following policies:

Disabilities Services
Johns Hopkins University is committed to providing reasonable and appropriate accommodations to students with disabilities. Students with documented disabilities should contact the coordinator listed on the Disability Accommodations page. Further information and a link to the Student Request for Accommodation form can also be found on the Disability Accommodations page.

Ethics & Plagiarism
The strength of the university depends on academic and personal integrity. In this course, students must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Students should report any violations they witness to the instructor.
Read and adhere to JHU's Notice on Plagiarism.

Dropping the Course
Students are responsible for understanding the university's policies and procedures regarding withdrawing from courses found in the current catalog. Students should be aware of the current deadlines according to the Academic Calendar.

Getting Help
You have a variety of methods to get help on Blackboard. Please consult the help listed in the "Blackboard Help" link for important information. If you encounter technical difficulty in completing or submitting any online assessment, please immediately contact the designated help desk listed on the AAP online support page. Also contact your instructor at the email address listed in this syllabus *before assignments are due*.

Copyright Policy
All course material are the property of JHU and are used for the student's individual academic purpose only. Any dissemination, copying, reproducing, modification, displaying, or transmitting of any course material content for any other purpose is prohibited, will be considered misconduct under the JHU Copyright Compliance Policy, and may be cause for disciplinary action. In addition, encouraging academic dishonesty or cheating by distributing information about course materials or assignments which would give unfair advantage to others may violate AAP's Code of Conduct and the University's Student Conduct Code. Specifically, recordings, course materials and lecture notes may not be exchanged or distributed for commercial purposes, for compensation, or for any purpose other than use by students enrolled in the class. Other distributions of such materials by students may be deemed to violate the above University policies and be subject to disciplinary action.

Code of Conduct
To better support all students, the Johns Hopkins University non-academic Student Conduct Code has been integrated and updated to include all divisions of the University. In addition, it is important to note that all AAP students are still accountable for the Code of Conduct for Advanced Academic Programs.

Title IX: Confidentiality and Mandatory Reporting
As an instructor, one of my responsibilities is to help create a safe and inclusive learning environment on our campus. I also have mandatory reporting responsibilities related to my role as a Responsible Employee under the Sexual Misconduct Policy & Procedures (which prohibits sexual harassment, sexual assault, relationship violence and stalking), as well as the General Anti-Harassment Policy (which prohibits all types of protected status based discrimination and harassment). It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep information you share private to the greatest extent possible. However, I am required to share information that I learn of regarding sexual misconduct, as well as protected status based harassment and discrimination, with the Office of Institutional Equity (OIE). For a list of individuals/offices who can speak with you confidentially, please see Appendix B of the JHU Sexual Misconduct Policies and Laws.
For more information on both policies mentioned above, please see: JHU Relevant Policies, Codes, Statements and Principles.
Please also note that certain faculty and other University community members also have a duty as a designated Campus Safety Authority under the Clery Act to notify campus security of certain crimes, as well as a duty under State law and University policy to report suspected child abuse and/or neglect.