

GRADUATE – Disciplines Menu
Doctorate and Masters in Economics

DISCIPLINE: Microeconometrics	CODE: MDPEEC023
ACRONYM:	
PROFESSOR: Marcelo Jovita Moreira	WORKLOAD: 40h CREDIT HOUR: 4
MANDATORY: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	COURSE: <input type="checkbox"/> M <input type="checkbox"/> D <input checked="" type="checkbox"/> MD
PREREQUISITES:	
CONCENTRATION AREA: Statistics and Econometry.	
STUDY PLAN	
<p>Course in Microeconometrics</p> <p>This course discusses econometric models and tools with a focus on economic applications. Topics to be covered include M-estimation, simultaneous equations model, measurement error, panel data models, quantile regression, limited dependent variables, discrete choice models, and treatment effects.</p> <p>Organization</p> <p>The goal of this course is to improve the econometrics background and develop the ability to think critically and argue skillfully about the merits of published research in economics. For each topic, one or two students will present a related (assigned) paper. It is highly encouraged that everyone participates in the discussion that follows the presentation. If possible, I will post the data set used in the paper on the course website.</p> <p>Usually, class meets on Mondays (3:30pm-5:30pm) and Fridays (3:30pm- 6:30pm). Please see attached calendar.</p> <p>Assignments and Grading</p> <p>There will also be two problem sets, a midterm, and a final exam. Late problem sets will not be accepted. Each student will get a grade out of 10 for the presentation and out of 10 for the problem sets (call this grade PS).</p> <p>The total grade out of 20 will not count in the overall grade if you do better in the final. You will receive a grade out of 40 in the midterm exam (denote this grade MT). There will be no make-up midterm exams, but the midterm will not count if you do better in the final. You will receive a grade out of 40 in the final exam (call it FI). The overall course grade will be determined by the following formula: $CG = \max(PS, FI/2) + \max(MT, FI) + FI$.</p>	
GOALS	

The goal of this course is to improve econometrics in depth and develop the ability to think critically and discuss skillfully the merits of the research published on economics. For each topic, one or two students will present a related document (assigned). It is strongly recommended that everybody participate in the discussion following the presentation.

BIBLIOGRAPHY

Lectures

This course is mainly based on papers and on the book by Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. MIT Press.

The preliminary reading list for each lecture follows below. Papers to be presented are indicated with the symbol*.

M-Estimation

Newey, W. and D. McFadden (1994): "Large Sample Estimation and Hypothesis Testing," *Handbook of Econometrics* 4, ch. 36.

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Chs. 12-14.

Clustering and Variance Estimation

Andrews, D. (1991): "Heteroskedasticity and Autocorrelation Consistent Covariance Matrix Estimation," *Econometrica*, 59, 3, 817-858.

Newey, W. and K. West (1987): "A Simple, Positive Semi-Definite, Heteroskedasticity and Autocorrelation Consistent Covariance Matrix," *Econometrica*, 55(3), 703-708.

Levitt, S. D. (1997): "Using electoral cycles in policy hiring to estimate the effect of police on crime," *American Economic Review*, 87(3), 270-290. *

McCrary, J. (2002): "Using electoral cycles in police hiring to estimate the effect of police on crime: comment," *American Economic Review*, 92(4), 1236-1243. *

Moulton, B. (1990): "An Illustration of a Pitfall in Estimating the Effects of Aggregate Variables on Micro Unites," *Review of Economics and Statistics*, 334-338. *

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Ch. 7.

Identification, Errors-in-Variables, and Misspecification

Ehrlich, I. (1975): "The Deterrent Effect of Capital Punishment: A Question of Life and Death," *American Economic Review*, 65(3), 397-417. *

Passell, P. and J. B. Taylor (1977): “The deterrent effect of capital punishment: another view,” *American Economic Review*, 67(3), 445-451. *

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Ch. 4.

Simultaneous Equations Model

Angrist, J. and A. Krueger (1991): “Does compulsory school attendance affect schooling and earnings?,” *The Quarterly Journal of Economics*, 106(4), 979-1014. *

Bound, J., D. Jaeger and R. Baker (1995): “Problems with instrumental variables estimation when the correlation between the Instruments and the endogenous explanatory variables is weak”. *Journal of American Statistical Association*, 90, 443-50. *

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Chs. 5, 6, 8, 9.

Weak Identification

Andrews, D. and J. Stock (2007): “Inference with Weak Instruments” in *Advances in Economics and Econometrics, Theory and Applications: Ninth World Congress of the Econometric Society*, Vol III. Edited by R. Blundell, W. K. Newey, and T. Person.

Kleibergen, F. (2005): “Testing parameters in GMM without assuming that they are identified,” *Econometrica*, 73(4), 1103-1124.

Mills, B., M. J. Moreira, and L. Vilela (2014) “Tests Based on t-Statistics for IV Regression with Weak Instruments,” *Journal of Econometrics*, 182(2), 351-363.

Moreira, H. and M. J. Moreira (2015) “Optimal Two-Sided Tests for Instrumental Variables Regression with Heteroskedasticity and Autocorrelated Errors,” Working Paper, FGV/EPGE.

Yogo, M. (2004): “Estimating the Elasticity of Intertemporal Substitution When Instruments Are Weak,” *Review of Economics and Statistics*, 86(3), 797-810. *

Second-Order Asymptotics and the Bootstrap

Cruz, L. M. and M. J. Moreira (2005) “On the Validity of Econometric Techniques With Weak Instruments: Inference on Returns to Education Using Compulsory School Attendance Laws” *Journal of Human Resources*, 40(2), 393-410. *

Gourieroux, C. and A. Monfort (1995): *Statistics and Econometric Models*. Ch. 23.

Horowitz, J. (2001): “The Bootstrap” *Handbook of Econometrics* 5, ch. 52. Linear Models and Omitted Variables.

Donohue, J. J. III and S. D. Levitt (2001): “The impact of legalized abortion on crime” *Quarterly Journal of Economics*, 67(2), 379-420. *

Foote, C. and C. F. Goetz (2005): "The impact of legalized abortion on crime: comment" *Quarterly Journal of Economics*, 123(1), 407-423. *

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Ch. 4.

Panel Data Model

Arellano, M. and B. Honoré (2001): "Panel Data Models: Some Recent Developments," *Handbook of Econometrics* 5, ch. 53.

Ashenfelter, O. and A. Krueger (1994): "Estimates of the Economic Return to Schooling from a New Sample of Twins" *American Economic Review*, 84(5), 1157-73. *

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Chs. 10, 11. *Quantile Regression and Linear Programming*.

Koenker, R. and K. Hallock (2001): "Quantile Regression," *Journal of Economic Perspectives*, 15, 143-156. *

Koenker, R. (2005): *Quantile Regression*. Chs. 2, 6. *Limited Dependent Variables*.

Chay, K. and J. Powell (2001): "Semiparametric Censored Regression Models," *Journal of Economic Perspectives*, 15, 29-42. *

Evans, W. N., M. C. Farrelly, and E. Montgomery (1999): "Do Workplace Smoking Bans Reduce Smoking?" *American Economic Review*, 89(4), 728-747.

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Chs. 15.1-15.6, 16.

Discrete Choice Models (Time Allowing)

Berry, S., J. Levinsohn, and A. Pakes (2007): "Automobile Prices in Market Equilibrium," *Econometrica*, 63, 841-890. *

Maddala, G. (1986): *Limited-Dependent and Qualitative Variables in Econometrics*. Chs. 1-3.

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Chs. 15.9-15.10.

Treatment Effects (Time Allowing)

Hahn, J. (1998): "On the Role of the Propensity Score in Efficient Estimation of Average Treatment Effects," *Econometrica*, 66, 315-31.

Hirano, K., G. Imbens and G. Ridder (2003): "Efficient Estimation of Average Treatment Effects Using the Estimated Propensity Score," *Econometrica*, 71, 1161-1189.

Rosenbaum, P. and D. Rubin (1983): "The Central Role of the Propensity Score in Observational Studies for Causal Effects," *Biometrika* 70, 41-55.

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Vytlačil, E. (2002): “Independence, monotonicity, and latent index models: An equivalence result,”
Econometrica, 70, 331-41.

Wooldridge, J (2002): *Econometric Analysis of Cross Section and Panel Data*. Ch. 18.1-18.3.