# EKN 812: Microeconomics

Jesse Naidoo Semester 1, 2019

E-mail: jesse.naidoo@up.ac.za Web: TBD

Office Hours: TBD Class Hours: Monday 16.00 - 19.00 Office: Tukkiewerf 2-23 Class Room: Tukkiewerf 1-37

# **Course Description**

This is a course in (mostly classical) microeconomic theory. Our goal is for you to become competent users of that theory. A secondary goal is to learn to read economic research critically. The way to achieve both of these goals is by practicing: that is, by solving lots of problems and reading lots of papers.

Below are the topics we will cover, stated "abstractly". However, this course is heavily biased towards applications; we want to use the theory to help us understand and explain real-world applications. As you will see, the scope of applications for these tools is very wide. I have also tended to pick readings that reflect my interests in development and labor economics, although not exclusively.

# **Prerequisites**

No prior knowledge of economics is strictly required, but you do need to understand how to solve a constrained optimization problem, and you need to know the envelope theorem. Basic algebra and calculus are required. You should also know how to compute the mean and variance of a random variable. Although we will cover some of these things in the first week, you may have to revise them on your own.

#### Advice

I strongly encourage you to form study groups to help each other work on the problem sets and to discuss the readings. You will learn a lot more from your classmates than from me, if you take the time to seriously attempt the assignments.

# **Required Texts**

None. However, you may find useful complementary material in the following:

• Becker (2007a)

- Friedman (1962)
- Stigler (1987)
- McCloskey (1985)
- Deaton and Muellbauer (1980)
- Silberg and Suen (2000)

Several of these are hard to come by, but I have asked the library to put all of them on reserve. However, McCloskey (1985) is available for (free) download from her website, and Deaton and Muellbauer (1980) is still relatively easy to find. Becker (2007a) and Friedman (1962) are now available in Kindle format from Amazon, as is Deaton and Muellbauer (1980).

The papers I have listed below are not strictly necessary, but I assume you will want to see how the ideas and models we will study have been applied. It always helps to see an idea from several different angles.

#### Assessment

There will be 8 problem sets, a take-home midterm, and a final exam (in class).

# Class Schedule

# Week 01, 02/04 - 02/08: The Economic Approach to Human Behavior; Marshallian and Hicksian Demand

Required Readings

- Friedman (1953)
- Becker (1993)
- Becker (1962)

## Suggested Readings

- Becker (2007a), Ch. 2
- Deaton and Muellbauer (1980), Ch. 1-6
- Silberg and Suen (2000), Ch. 10
- Friedman (1962), Ch. 2
- Varian (1992), Ch. 7-9
- Stigler and Becker (1977)
- Rosen (2002)

#### **Applications**

- Davis (2008)
- Cunha, De Giorgi, and Jayachandran (2018)
- Dahl et al. (2016)

#### Week 02, 02/11 - 02/15: Welfare Measurement

Suggested Readings

- Becker (2007a), Ch. 3
- Deaton and Muellbauer (1980), Ch. 7-8
- Silberg and Suen (2000), Ch. 11; 19

#### Additional Readings

- Friedman (1962), Ch. 2
- Varian (1992), Ch. 10

# **Applications**

- Hendren (2017)
- Atkin, Faber, and Gonzalez-Navarro (2018); Atkin and Donaldson (2015)

# Week 03, 02/18 - 02/22: Intertemporal Choice and Durable Goods

#### Suggested Readings

- Becker (2007a), Ch. 3
- Silberg and Suen (2000), Ch. 12
- Deaton and Muellbauer (1980), Ch. 12 13

# Week 04, 02/25 - 03/01: Choice Under Uncertainty

#### Suggested Readings

- Becker (2007a), Ch. 4
- Deaton and Muellbauer (1980), Ch. 14
- Silberg and Suen (2000), Ch. 13

#### Additional Readings

- Friedman (1962), Ch. 4
- Varian (1992), Ch. 11

#### **Applications**

- Townsend (1994)
- Bryan and Morten (2019); Morten (2019)
- Meng, Qian, and Yared (2015)

#### Week 05, 03/04 - 03/08: Supply in Product Markets

#### Suggested Readings

- Becker (2007a), Ch. 5
- Coase (1960)
- Silberg and Suen (2000), Ch. 8-9

# Week 06, 03/11 - 03/15: Supply in Product Markets (continued)

#### Suggested Readings

- Friedman (1962), Ch. 5-6
- Stigler (1987), Ch. 7-10

# **Applications**

- Kreindler (2018)
- Hall (2018)
- Rosen (1981)
- Murphy, Shleifer, and Vishny (1989)
- Lazear (2001)

# Week 07, 03/18 - 03/22: Equilibrium in Product Markets

## Suggested Readings

- Becker (2007a), Ch. 6
- Rosen (1974)

## Additional Readings

- Stigler (1987), Ch. 11-13
- Varian (1992), Ch. 13-14
- Weyl and Fabinger (2013)

#### Week 08, 03/25 - 03/29: Autumn Break

No class; I will post a take-home midterm before the break.

#### Week 09, 04/01 - 04/05: Equilibrium in Product Markets (continued)

## **Applications**

- Demsetz (1968)
- Becker, Murphy, and Grossman (2006)
- Deacon and Sonstelie (1989)
- Weitzman (1977)
- Mulligan and Tsui (2016)
- Glaeser and Luttmer (2003)
- Diamond, McQuade, and Qian (2018)
- Prendergast (2017)
- Neal (2018), Ch. 3-5

#### Week 10, 04/08 - 04/12: Production and Costs

#### Suggested Readings

• Becker (2007a), Ch. 7

## Additional Readings

- Varian (1992), Ch. 1-6; 18
- Stigler (1976)

# Week 11, 04/15 - 04/19: Production and Costs (continued)

#### **Applications**

- Syverson (2011)
- Bloom et al. (2013); Bloom and Reenen (2010)
- Lucas (1978); Rosen (1981)
- Neal (2018), Ch. 1
- Shleifer (1998); Hart, Shleifer, and Vishny (1997)
- Muralidharan et al. (2017); Chaudhury et al. (2006)
- Galiani, Gertler, and Schargrodsky (2005)

#### Week 12, 04/22 - 04/26: Factor Demand

#### Suggested Readings

• Becker (2007a), Ch. 8

## Additional Readings

- Friedman (1962), Ch. 7-10
- Stigler (1987), Ch. 15; 17
- Varian (1992), Ch. 4-6
- Rosen (1978)

# Week 13, 04/29 - 05/03: Factor Demand (continued)

#### **Applications**

- Neal (2018), Ch. 2; Neal (2011)
- Autor, Dorn, and Hanson (2013)
- Acemoglu and Autor (2011)
- Atalay, Hortaçsu, and Syverson (2014)

#### Week 14, 05/06 - 05/10: Human Capital

#### Suggested Readings

- Becker (1994), Ch. 2
- Becker (2007a), Ch. 9
- Neal and Rosen (2000); Rosen (1985)

#### Additional Readings

- Friedman (1962), Ch. 11-15
- Stigler (1987), Ch. 17-18

- Rosen (1983)
- Becker (2007b)

# Week 15, 05/13 - 05/17: Human Capital (continued)

#### **Applications**

- Murphy, Scott-Clayton, and Wyness (2018)
- Lazear (2009); Topel (1991)
- Greenstone and Hanna (2014)
- Murphy and Topel (2006)
- Rosenzweig (2010)
- Lagakos et al. (2018b); Lagakos et al. (2018a)

# Week 16, 05/20 - 05/24: Physical Capital (Including Improvements to Land)

#### Suggested Readings

- Becker (2007a), Ch. 10
- Friedman (1962), Ch. 17
- Stigler (1987), Ch. 19

#### **Applications**

- Deaton (1997), Ch. 6
- Banerjee, Karlan, and Zinman (2015); Banerjee, Karlan, and Zinman (2015)
- Kaboski and Townsend (2011); Meager (2019)
- Glaeser and Gyourko (2018); Topel and Rosen (1988)
- Caballero (1999)
- Rosen, Murphy, and Scheinkman (1994)
- Rosen (1999)

## References

Acemoglu, Daron, and David Autor. 2011. "Skills, Tasks and Technologies: Implications for Employment and Earnings." In *Handbook of Labor Economics*, 4b:1043–1171. Elsevier. http://www.sciencedirect.com/science/article/pii/S0169721811024105.

Atalay, Enghin, Ali Hortaçsu, and Chad Syverson. 2014. "Vertical integration and input flows." *American Economic Review* 104 (4): 1120–48. https://doi.org/10.1257/aer.104.4.1120.

Atkin, David, and Dave Donaldson. 2015. "Who's Getting Globalized? The Size and Implications of Intra-National Trade Costs." NBER Working Paper Series. Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.2139/ssrn.2818941.

Atkin, David, Benjamin Faber, and Marco Gonzalez-Navarro. 2018. "Retail Globalization and Household Welfare: Evidence from Mexico." *Journal of Political Economy* 126 (1): 1–73. https://doi.org/10.1086/695476.

Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103 (6): 2121–68. https://doi.org/10.1257/aer.103.6.2121.

Banerjee, Abhijit, Dean Karlan, and Jonathan Zinman. 2015. "Six Randomized Evaluations of Microcredit: Introduction and Further Steps." *American Economic Journal: Applied Economics* 7 (1): 1–21.

Becker, Gary S. 1962. "Irrational Behavior and Economic Theory." *Journal of Political Economy* 70 (1). The University of Chicago Press: 1–13.

——. 1993. "Nobel Lecture: The Economic Way of Looking at Behavior." *Journal of Political Economy* 101 (3): 385–409.

——. 1994. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. 3rd ed. Cambridge, MA: Harvard University Press.

——. 2007a. Economic Theory. 2nd ed. New York: Routledge.

———. 2007b. "Health as human capital: synthesis and extensions." *Oxford Economic Papers* 59: 379–410. http://oep.oxfordjournals.org/content/59/3/379.short.

Becker, Gary S, Kevin M Murphy, and Michael Grossman. 2006. "The Market for Illegal Goods: The Case of Drugs." *Journal of Political Economy* 114 (1). UChicago Press: 38–60.

Bloom, Nicholas, Benn Eifert, Aprajit Mahajan, David McKenzie, and John Roberts. 2013. "Does Management Matter? Evidence from India." *Quarterly Journal of Economics* 128 (1): 1–51. https://doi.org/10.1093/qje/qjs044.

Bloom, Nicholas, and John van Reenen. 2010. "Why Do Management Practices Differ across Firms and Countries?" *Journal of Economic Perspectives* 24 (1): 203–24.

Bryan, Gharad, and Melanie Morten. 2019. "The Aggregate Productivity Effects of Internal Migration: Evidence from Indonesia." *Journal of Political Economy (Forthcoming)*. https://doi.org/10.3386/w23540.

Caballero, Ricardo J. 1999. "Aggregate Investment." In *Handbook of Macroeconomics*, 1:813–62. PART B. https://doi.org/10.1016/S1574-0048(99)10020-X.

Chaudhury, Nazmul, Jeffrey Hammer, Michael Kremer, Karthik Muralidharan, and F. Halsey Rogers. 2006. "Missing in Action: Teacher and Health Worker Absence in Developing Countries." *Journal of Economic Perspectives* 20 (1): 91–116. https://doi.org/10.1257/089533006776526058.

Coase, Ronald H. 1960. "The Problem of Social Cost." *Journal of Law and Economics* 3. The University of Chicago Press: 1–44. http://www.jstor.org/stable/724810.

Cunha, Jesse M, Giacomo De Giorgi, and Seema Jayachandran. 2018. "The Price Effects of Cash Versus In-Kind Transfers." *The Review of Economic Studies*, April. https://doi.org/10.1093/restud/rdy018.

Dahl, Gordon B, Katrine V Løken, Magne Mogstad, and Kari Vea Salvanes. 2016. "What is the Case for Paid Maternity Leave?" *Review of Economics and Statistics* 98 (4): 655–70. https://doi.org/10.1162/REST.

Davis, Lucas W. 2008. "The Effect of Driving Restrictions on Air Quality in Mexico City." *Journal of Political Economy* 116 (1): 38–81.

Deacon, Robert T, and Jon Sonstelie. 1989. "The Welfare Costs of Rationing By Waiting." *Economic Inquiry* 27 (2): 179–96. https://doi.org/10.1111/j.1465-7295.1989.tb00777.x.

Deaton, Angus, and John Muellbauer. 1980. *Economics and Consumer Behavior*. Cambridge, UK: Cambridge University Press.

Deaton, Angus S. 1997. *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*. Johns Hopkins University Press.

Demsetz, Harold. 1968. "Why Regulate Utilities?" *Journal of Law and Economics* 11 (1): 55–65. https://doi.org/10.1086/466643.

Diamond, Rebecca, Timothy McQuade, and Franklin Qian. 2018. "The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality: Evidence from San Francisco." NBER Working Paper Series. Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.3386/w24181.

Friedman, Milton. 1953. "The Methodology of Positive Economics." In *Essays in Positive Economics*, 3–16.

——. 1962. *Price Theory*. Routledge. https://doi.org/10.4324/9781315127378.

Galiani, Sebastian, Paul Gertler, and Ernesto Schargrodsky. 2005. "Water for Life: The Impact of the Privatization of Water Services on Child Mortality." *Journal of Political Economy* 113 (1): 83–120. https://doi.org/10.1086/426041.

Glaeser, Edward, and Joseph Gyourko. 2018. "The Economic Implications of Housing Supply." *Journal of Economic Perspectives* 32 (1): 3–30. https://doi.org/10.1257/jep.32.1.3.

Glaeser, Edward L, and Erzo Luttmer. 2003. "The Misallocation of Housing Under Rent Control." *American Economic Review* 93 (4): 1027–46. https://doi.org/10.1257/000282803769206188.

Greenstone, Michael, and Rema Hanna. 2014. "Environmental Regulations, Air and Water Pollution, and Infant Mortality in India." *American Economic Review* 104 (10): 3038–72. https://doi.org/doi: 10.1257/aer.104.10.3038.

Hall, Jonathan D. 2018. "Pareto Improvements from Lexus Lanes: The effects of pricing a portion of the lanes on congested highways." *Journal of Public Economics* 158 (September 2017). Elsevier: 113–25. https://doi.org/10.1016/j.jpubeco.2018.01.003.

Hart, Oliver, Andrei Shleifer, and Robert W. Vishny. 1997. "The Proper Scope of Government: Theory and an Application to Prisons." *Quarterly Journal of Economics* 112 (4): 1127–61. https://doi.org/10.1162/003355300555448.

Hendren, Nathaniel. 2017. "Efficient Welfare Weights." NBER Working Paper Series. Cambridge, MA: National Bureau of Economic Research. http://www.nber.org/papers/w20351.

Kaboski, Joseph P, and Robert M Townsend. 2011. "A Structural Evaluation of a Large-Scale Quasi-Experimental Microfinance Initiative." *Econometrica* 79 (5): 1357–1406. https://doi.org/10.3982/ECTA7079.

Kreindler, Gabriel E. 2018. "The Welfare Effect of Road Congestion Pricing: Experimental Evidence and Equilibrium Implications." Department of Economics, Massachusetts Institute of Technology. http://economics.mit.edu/files/13619.

Lagakos, David, Benjamin Moll, Tommaso Porzio, Nancy Qian, and Todd Schoellman. 2018a. "Life-Cycle Human Capital Accumulation Across Countries: Lessons from U.S. Immigrants." *Journal of Human Capital* 12 (2): 305–42. https://doi.org/10.1086/697245.

——. 2018b. "Life Cycle Wage Growth Across Countries." *Journal of Political Economy* 126 (2): 797–849. https://doi.org/10.1086/696225.

Lazear, Edward P. 2001. "Educational Production." Quarterly Journal of Economics 126 (3): 777–803.

——. 2009. "Firm-Specific Human Capital: A Skill-Weights Approach." *Journal of Political Economy* 117 (5): 914–40.

Lucas, Robert E. 1978. "On the Size Distribution of Business Firms." *The Bell Journal of Economics* 9 (2): 508–23. http://www.jstor.org/stable/3003596.

McCloskey, Donald. 1985. The Applied Theory of Price. New York: Macmillan.

Meager, Rachael. 2019. "Understanding the Impact of Microcredit Expansions: A Bayesian Hierarchical Analysis of Seven Randomised Experiments." *American Economic Journal: Applied Economics (Forthcoming)*. https://doi.org/10.2139/ssrn.2620834.

Meng, Xin, Nancy Qian, and Pierre Yared. 2015. "The Institutional Causes of China's Great Famine, 1959-1961." *Review of Economic Studies* 82 (4): 1568–1611. https://doi.org/10.1093/restud/rdv016.

Morten, Melanie. 2019. "Temporary Migration and Endogenous Risk-Sharing in Village India." *Journal of Political Economy (Forthcoming)*.

Mulligan, Casey B, and Kevin K Tsui. 2016. "The Upside-Down Economics of Regulated and Otherwise Rigid Prices." National Bureau of Economic Research.

Muralidharan, Karthik, Jishnu Das, Alaka Holla, and Aakash Mohpal. 2017. "The fiscal cost of weak governance: Evidence from teacher absence in India." *Journal of Public Economics* 145. The Authors.: 116–35. https://doi.org/10.1016/j.jpubeco.2016.11.005.

Murphy, Kevin M, Andrei Shleifer, and Robert W Vishny. 1989. "Industrialization and the Big Push." *Journal of Political Economy* 97 (5). The University of Chicago Press: 1003–26. http://www.jstor.org/stable/1831884.

Murphy, Kevin M, and Robert H Topel. 2006. "The Value of Health and Longevity." *Journal of Political Economy* 114 (5). The University of Chicago Press: 871–904.

Murphy, Richard, Judith Scott-Clayton, and Gillian Wyness. 2018. "The end of free college in England: Implications for enrolments, equity, and quality." *Economics of Education Review (Forthcoming)*, December. https://doi.org/10.1016/j.econedurev.2018.11.007.

Neal, Derek. 2011. "The Design of Performance Pay in Education." In *Handbook of the Economics of Education*, edited by Eric Hanushek, Stephen Machin, and Ludger Woessmann, 4:495–550. Elsevier B.V. http://dx.doi.org/10.1016/B978-0-444-53444-6.00006-7.

——. 2018. *Information, Incentives, and Education Policy*. Cambridge, MA: Harvard University Press.

Neal, Derek, and Sherwin Rosen. 2000. "Theories of the Distribution of Earnings." In *Handbook of Income Distribution*, 379–427. http://linkinghub.elsevier.com/retrieve/pii/S157400560080010X.

Prendergast, Canice. 2017. "How Food Banks Use Markets to Feed the Poor." *Journal of Economic Perspectives* 31 (4): 145–62.

Rosen, Sherwin. 1974. "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition." *Journal of Political Economy* 82 (1): 34–55. https://doi.org/10.1086/260169.

——. 1978. "Substitution and Division of Labour." *Economica* 45 (179): 235–50. http://www.jstor.org/stable/2553070.

——. 1981. "The Economics of Superstars." *American Economic Review* 71 (5). The American Economic Association: 845–58.

——. 1983. "Specialization and Human Capital." *Journal of Labor Economics* 1 (1): 43–49. https://doi.org/10.1086/298003.

——. 1985. "Implicit Contracts: A Survey." *Journal of Economic Literature* 23 (3): 1144–75. https://www.jstor.org/stable/2725461.

———. 1999. "Potato Paradoxes." *Journal of Political Economy* 107 (S6). The University of Chicago Press: 294–313. http://www.jstor.org/stable/2990755.

———. 2002. "Markets and Diversity." *American Economic Review* 92 (1): 1–15. https://doi.org/10.1257/000282802760015577.

Rosen, Sherwin, Kevin M Murphy, and José Scheinkman. 1994. "Cattle Cycles." *Journal of Political Economy* 102 (3). The University of Chicago Press: 468–92. http://www.jstor.org/stable/2138619.

Rosenzweig, Mark R. 2010. "Microeconomic Approaches to Development: Schooling, Learning, and Growth." *Journal of Economic Perspectives* 24 (3): 81–96.

Shleifer, Andrei. 1998. "State versus Private Ownership." *Journal of Economic Perspectives* 12 (4): 133–50. https://doi.org/10.1257/jep.12.4.133.

Silberg, Eugene, and Wing Suen. 2000. *The Structure of Economics: A Mathematical Analysis*. 3rd ed. Singapore: McGraw-Hill.

Stigler, George J. 1976. "The Xistence of X-efficiency." *American Economic Review* 66 (1). JSTOR: 213–16. http://www.jstor.org/stable/10.2307/1804963.

——. 1987. *The Theory of Price*. 4th ed. New York: Macmillan.

Stigler, George J, and Gary S Becker. 1977. "De Gustibus Non Est Disputandum." *American Economic Review* 67 (2). The American Economic Association: 76–90.

Syverson, Chad. 2011. "What Determines Productivity?" *Journal of Economic Literature* 49 (2): 326–65. https://doi.org/10.1257/jel.49.2.326.

Topel, Robert H. 1991. "Specific Capital, Mobility, and Wages: Wages Rise with Job Seniority." *Journal of Political Economy* 99 (1): 145. https://doi.org/10.1086/261744.

Topel, Robert H, and Sherwin Rosen. 1988. "Housing Investment in the United States." *Journal of Political Economy* 96 (4): 718–40.

Townsend, Robert M. 1994. "Risk and Insurance in Village India." *Econometrica* 62 (3). JSTOR: 539–91. http://www.jstor.org/stable/10.2307/2951659.

Varian, Hal R. 1992. Microeconomic Analysis. 3rd ed. New York: WW Norton & Co.

Weitzman, Martin L. 1977. "Is the Price System or Rationing More Effective in Getting a Commodity to Those Who Need it Most?" *Bell Journal of Economics* 8 (2): 517–24. http://www.jstor.org/stable/3003300.

Weyl, E Glen, and Michal Fabinger. 2013. "Pass-Through as an Economic Tool: Principles of Incidence under Imperfect Competition." *Journal of Political Economy* 121 (3): 528–83. https://doi.org/10.1086/670401.