



GEORGETOWN UNIVERSITY

**The Economics and Strategy of Sports
Economics 411
Provisional Syllabus**

Instructor: Ian Gale

Office: ICC 567

Lectures: Monday and Wednesday, 11:00 pm - 12:15 pm

Office Hours: Tuesday, 10:00-12:00, or by appointment

This course will introduce and apply concepts from microeconomics to issues that arise in professional and amateur sports. Among the topics covered in the course will be: the organization of leagues, competitive balance, cooperative and collusive behavior, measurement of productivity, the market for franchises, sale and resale of tickets, and public financing of facilities. The course will also devote significant time to the analysis of strategy in sports. Do coaches and players optimize or do they deviate systematically from optimal behavior? The availability of performance data make sports a fruitful area for applying microeconomic concepts.

The prerequisites for the course are Econ 101 or 103, and Econ 122. The course does not require any prior knowledge of sports.

Problem sets will comprise 20% of the course grade, and the midterm and final exams will each be worth 40%. This yields a numerical score for the course, which is then translated into a letter grade. If you miss an exam you will receive a grade of zero. (In case of a medical or family emergency, you may petition the Dean to be excused.) If the University closes on the day of the midterm exam, the exam will be given during the next class period. If you have three final exams within 24 hours, you may petition the Dean to take the exam during the conflict exam time slot.

In place of the final exam, you may opt to write a term paper. The paper could be a review of one or more journal articles on a single topic, or it could involve data analysis. If you choose this option, a 100-word proposal is due in March.

A student who is found to have violated the Georgetown Honor Code will receive an F for the course in addition to any penalties imposed by the Honor Council.

Required Text

Leeds, M., and P. von Allmen, *The Economics of Sports* (Pearson), 5th ed.

The text contains analysis, background material and references for further reading. (It should be fine to use an earlier edition.)

Lectures and Readings

The topics and readings are listed below, along with the approximate time allotted to each topic. It is recommended that you read the material from the text and the readings with an asterisk.

Introduction (one class)

*Leeds and von Allmen (LA) Chapter 1

Neale, W., "The Peculiar Economics of Professional Team Sports," *Quarterly Journal of Economics*, 1964, 1-14.

Sanderson, A., "The Puzzling Economics of Sports," *Concise Encyclopedia of Economics*, 2004.

*Szymanski, S., "The Assessment: The Economics of Sport," *Oxford Review of Economic Policy*, 2003, 467-477.

Sports Franchises as Profit-Maximizing Firms (two classes)

*LA Chapter 2 (including Appendix 2A) and 3

Alexander, D., "Major League Baseball: Monopoly Pricing and Profit-Maximizing Behavior," *Journal of Sports Economics*, 2001, 341-355.

*Courty, P., "Some Economics of Ticket Resale," *Journal of Economic Perspectives*, 2003, 85-97.

*El Hodiri, M., and J. Quirk, "An Economic Model of a Professional Sports League," *Journal of Political Economy*, 1971, 1302-1319.

*Happel, S., and M. Jennings, "The Folly of Anti-Scalping Laws," *Cato Journal*, 1995.

Applications of Probability and Statistics (two classes)

*LA, Appendix 2B

Albright, S.C., "A Statistical Analysis of Hitting Streaks in Baseball," *Journal of the American Statistical Association*, 1993, 1175-83.

*Camerer, C., "Does the Basketball Market Believe in the 'Hot Hand'?" *American Economic Review*, 1989, 1257-1261.

*Gilovich, T., R. Vallone and A. Tversky, "The Hot Hand in Basketball: On the Misperception of Random Sequences," *Cognitive Psychology*, 1985, 295-314.

Grinstead, C., and J.L. Snell, "[Introduction to Probability](#)," mimeo.

- *Hakes, J., and R. Sauer, "An Economic Evaluation of the Moneyball Hypothesis," *Journal of Economic Perspectives*, 2006, 173-186.
- Sykes, A., "[An Introduction to Regression Analysis](#)," mimeo.

Do Coaches Optimize? (two classes)

- Annis, D., "Optimal End-Game Strategy in Basketball," *Journal of Quantitative Analysis in Sports*, 2006.
- *Romer, D., "Do Firms Maximize? Evidence from Professional Football," *Journal of Political Economy*, 2006, 340-365.
- *Sackrowitz, H., "Refining the Point(s) after Touchdown Decision," *Chance*, 2000, 29-34.

Do Players Optimize? (two classes)

- *LA, Chapter 4 Appendix
- *Chiappori, P.-A., S. Levitt and T. Groseclose, "Testing Mixed-Strategy Equilibria when Players are Heterogeneous: The Case of Penalty Kicks in Soccer," *American Economic Review*, 2002, 1138-1151.
- Kovash, K., and S. Levitt, "Professionals Do Not Play Minimax: Evidence from Major League Baseball and the National Football League," 2009, mimeo.
- Walker, M., and J. Wooders, "Minimax Play at Wimbledon," *American Economic Review*, 2001, 1521-38.

Gambling and Corruption (one class)

- *Duggan, M., and S. Levitt, "Winning Isn't Everything: Corruption in Sumo Wrestling," *American Economic Review*, 2002, 1594-1605.
- Sauer, R., "The Economics of Wagering Markets," *Journal of Economic Literature*, 1998, 2012-2064.
- Taylor, B., and J. Trogon, "Losing to Win: Tournament Incentives in the NBA," *Journal of Labor Economics*, 2002, 23-41.
- *Wolfers, J., "Point Shaving: Corruption in NCAA Basketball," *American Economic Review*, 2006, 279-83.

Monopoly and Antitrust (one class)

- *Adams, W., and J.W. Brock, "Monopoly, Monopsony, and Vertical Collusion: Antitrust Policy and Professional Sports," *The Antitrust Bulletin*, 1997, 721-741.
- Carlton, D., A. Frankel and E. Landes, "The Control of Externalities in Sports Leagues: An Analysis of Restrictions in the National Hockey League," *Journal of Political Economy*, 2004, S268-288.
- Ross, S., and S. Szymanski, "Antitrust and Inefficient Joint Ventures: Why Sports Leagues Should Look More Like McDonald's and Less Like the United Nations," *Marquette Sports Law Review*, 2006, 214-259.

Competitive Balance (two classes)

*LA Chapter 5

Dietl, H., M. Lang and A. Rathke, "The Effect of Salary Caps in Professional Team Sports on Social Welfare," *B.E. Journal of Economic Analysis & Policy*, 2009, 17.

*Fort, R., and J. Quirk, "Cross-subsidization, Incentives, and Outcomes in Professional Team Sports Leagues," *Journal of Economic Literature*, 1995, 1265-1299.

*Noll, R., "The Economics of Promotion and Relegation in Sports: The Case of English Football," *Journal of Sports Economics*, 2002, 169-203.

Schmidt, M., and D. Berri, "Competitive Balance and Attendance: The Case of Major League Baseball," *Journal of Sports Economics*, 2001, 145-167.

Szymanski, S., "The Champions League and the Coase Theorem," *Scottish Journal of Political Economy*, 2007, 355-73.

Szymanski, S., "The Economic Design of Sporting Contests," *Journal of Economic Literature*, 2003, 1137-87.

Player Selection (one class)

*Massey, C., and R. Thaler, "The Loser's Curse: Overconfidence vs. Market Efficiency in the National Football League Draft," 2010, mimeo.

Spurr, S.J., "The Baseball Draft: A Study of the Ability to Find Talent," *Journal of Sports Economics*, 2000, 66-85.

Uneven Playing Fields: The Impact of Home Advantage and Coin Tosses (two classes)

Che, Y.-K., and T. Hendershott, "How to Divide the Possession of a Football?" *Economics Letters*, 2007, 561-565.

*Che, Y.-K., and T. Hendershott, "The NFL Should Auction Possession in Overtime Games," *The Economists' Voice*, 2009, 1-4.

*Dohmen, T., "The Influence of Social Forces: Evidence from the Behavior of Football Referees," *Economic Inquiry*, 2008, 411-424.

Doyle, J., and B. Leard, "Variations in Home Advantage: Evidence from the National Hockey League," *Journal of Quantitative Analysis in Sports*, 2012.

Competition for Franchises and Events (two classes)

*LA Chapter 6 and 7

Baade, R., "Evaluating Subsidies for Professional Sports in the United States and Europe: A Public-Sector Primer," *Oxford Review of Economic Policy*, 2003, 585-597.

*Coates, D., and B.R. Humphreys, "Caught Stealing: Debunking the Economic Case for D.C. Baseball," *Cato Institute Briefing Paper*, 2004.

Coates, D., and B.R. Humphreys, "Novelty Effects of New Facilities on Attendance at Professional Sporting Events," *Contemporary Economic Policy*, 2005, 436-455.

- *Matheson, V., "Mega-Events: The Effect of the World's Biggest Sporting Events on Local, Regional, and National Economies," 2006, mimeo.
- *Siegfried, J., and A. Zimbalist, "The Economics of Sports Facilities and Their Communities," *Journal of Economic Perspectives*, 2000, 95-114.

Labor Markets in Professional Sports (three classes)

*LA Chapter 8 and 9

- Fearing, D., J. Acimovic and S. Graves, "How to Catch a Tiger: Understanding Putting Performance on the PGA Tour," *Journal of Quantitative Analysis in Sports*, 2011.
- Hausman, J., and G. Leonard, "Superstars in the National Basketball Association: Economic Value and Policy," *Journal of Labor Economics*, 1997, 586-624.
- *Kahn, L., "The Sports Business as a Labor Market Laboratory," *Journal of Economic Perspectives*, 2000, 75-94.
- Krautmann, A., and M. Oppenheimer, "Contract Length and the Return to Performance in Major League Baseball," *Journal of Sports Economics*, 2002, 6-17.
- Rosen, S., "The Economics of Superstars," *American Economic Review*, 1981, 845-858.
- *Rosen, S., and A. Sanderson, "Labor Markets in Professional Sports," *Economic Journal*, 2001, F47-F68.
- Rottenberg, S., "The Baseball Players' Labor Market," *Journal of Political Economy*, 1956, 242-258.
- *Scully, G., "Pay and Performance in Major League Baseball," *American Economic Review*, 1974, 915-930.
- Schmidt, M., and D. Berri, "The Impact of Labor Strikes on Consumer Demand: An Application to Professional Sports," *American Economic Review*, 2004, 344-357.
- Torgler, B., and S. Schmidt, "What Shapes Player Performance in Soccer? Empirical Findings from a Panel Analysis," *Applied Economics*, 2007, 2355-2369.

The Effects of Incentives (two classes)

*LA Chapter 8

- Chan, W., P. Courty and H. Li, "Suspense: Dynamic Incentives in Sports Contests," *Economic Journal*, 2009, 24-46.
- *Connolly, R., and R. Rendleman, Jr., "Skill, Luck, and Streaky Play on the PGA Tour," *Journal of the American Statistical Association*, 2008, 74-88.
- Ehrenberg, R., and M. Bognanno, "Do Tournaments Have Incentive Effects?," *Journal of Political Economy*, 1990, 1307-24.
- Ferrall, C., and A. Smith, "A Sequential Game Model of Sports Championship Series: Theory and Estimation," *Review of Economics and Statistics*, 1999, 704-719.
- *Harbaugh, R., and T. Klumpp, "Early Round Upsets and Championship Blowouts," *Economic Inquiry*, 2005, 316-329.
- Moschini, G., "Incentives and Outcomes in a Strategic Setting: The 3-Points-For-A-Win System in Soccer," *Economic Inquiry*, 2010, 65-79.

Discrimination (one class)

*LA Chapter 10

Goff, B., R. McCormick and R. Tollison. "Racial Integration as an Innovation: Empirical Evidence from Sports Leagues," *American Economic Review*, 2002, 16-26.

Szymanski, S., "A Market Test for Discrimination in the English Professional Soccer Leagues," *Journal of Political Economy*, 2000, 590-603.

*Parsons, C., J. Sulaeman, M. Yates and D. Hamermesh, "Strike Three: Discrimination, Incentives, and Evaluation," *American Economic Review*, 2011, 1410-35.

Ranking Schemes (one class)

Fainmesser, I., C. Fershtman and N. Gandal, "A Consistent Weighted Ranking Scheme with an Application to NCAA College Football Rankings," 2009.

*Frechette, G., A. Roth and M. U. Ünver, "Unraveling Yields Inefficient Matchings: Evidence from Post-Season College Football Bowls," *RAND Journal of Economics*, 2007, 967-982.

College Sports (one class)

*LA Chapter 11

Frank, R., "Challenging the Myth: A Review of the Links Among College Athletic Success, Student Quality, and Donations," 2004, prepared for the Knight Foundation Commission on Intercollegiate Athletics.

*Kahn, L., "Markets: Cartel Behavior and Amateurism in College Sports," *Journal of Economic Perspectives*, 2007, 209-226.

*McCormick, R., and M. Tinsley, "Athletics versus Academics? Evidence from SAT Scores," *Journal of Political Economy*, 1987, 1103-16.

Meer, J., and H. Rosen, "The Impact of Athletic Performance on Alumni Giving: An Analysis of Microdata," *Economics of Education Review*, 2009, 287-294.

Pope, D., and J. Pope, "The Impact of College Sports Success on the Quantity and Quality of Student Applications," *Southern Economic Journal*, 2009, 750-780.