ABIZ 7940/ECON 7940 Course Outline
PRODUCTION ECONOMICS
Instructor: Barry Coyle

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The course surveys several microeconomic models. The following are emphasized: (1) a rigorous treatment of the models using duality; (2) a critical understanding of the limitations and possibilities for generalizing the models; and (3) relevance of the models for econometric research.

Prerequisites: a graduate or undergraduate honors course in microeconomics; a rigorous first course in econometrics; calculus; or consent of instructor.

There is no textbook for the course. Detailed lecture notes will be available for most topics.
For lecture notes: go to umanitoba.ca; then on upper right (in the Search box) type 1283.html - then click on my webpage, then select Production Notes (click on). Alternatively you can go to:
http://umanitoba.ca/faculties/afs/dept/agribusiness/media/pdf/Production_Notes.pdf

Nevertheless, the following textbooks may be of interest:
1. Hal R. Varian, Microeconomic Analysis, Norton, 3rd ed. 1992.
2. Robert G. Chambers, Applied Production Analysis: A Dual Approach, Cambridge University Press, 1988.
3. Charles B. Moss, Production Economics: An Empirical Approach, 2015, Draft Textbook online: word press.com (on Google, type in the title, then select red download rectangle on the bottom of page 1).

Grading:

1 midterm, 1 final exam, 1 term paper (due last day of class). Weights for these will be 1/3 each in calculating the course grade.

Term Paper:
The term paper can be any <u>original</u> applied or theoretical study that you can justify as being broadly related to the content of this course. For the term paper, you can present an econometric study, an empirical study not using econometrics, or a theoretical study. In your paper include a clear statement of: (1) any policy issues that you are addressing; (2) how your study relates to other studies attempting to address these issues; (3) the behavioral or econometric model that you are employing and why you chose it over alternative models. If you are doing an econometric study: explain your methodology for specifying and estimating the regression model and testing relevant hypotheses, explain results, and provide a candid assessment of limitations of your study and how future research might try to address these.

Note: see the University General Calendar for policies regarding plagiarism and cheating. During online exams, each student must complete the exam independently – any discussion with others (or use of service in answering exams) will be considered as plagiarism and cheating.

Note: * denotes readings that are highly recommended.

Introduction
* Shumway, 1995
Clark and Coyle, 1994
Shumway, 1993

1.   Static Cost Minimization
      * Varian, 1992, Ch. 1,4,5,6
      * Chambers, 1988, Ch. 2,3
      * Diewert, 1982
      Blackorby and Diewert, 1979
      Brown and Christensen, 1981
      Diewert, 1974, 1981b
      Hall, 1973
      McFadden, 1978
      Morrison, 1988

2.   Static Profit Maximization
      *Varian, 1992, Ch. 2,3
      *Chambers, 1988, Ch. 4
      *Diewert, 1982
      Chambers and Just, 1989
      Coyle, 1993b
      Diewert, 1974
      Hertel, 1987
      Lau, 1976, 1978a
      Lopez, 1984
      McFadden, 1978
      Paris, 1989
      Quiggin and Bui-Lan, 1984
      Shumway, Pope and Nash, 1984

3.   Static Utility Maximization and Expenditure Constraints
      *Varian, 1992, Ch.7,8
      *Diewert, 1982
      Appelbaum, 1979
      Chambers, 1988
      Deaton and Muellbauer, 1980, Ch.2
      Diewert, 1974
      Coyle, 1990
      Lee and Chambers, 1987

4.   Nonlinear Static Duality Theory
        Epstein, 1981a
        Hurwicz and Uzawa, 1971
        Silberberg, 1974a

5.   Functional Forms for Static Optimising Models
        *Varian, 1992, Ch.12
        *Chambers, 1988, Ch. 5
        *Berndt, 1991, Ch. 9
        *Diewert, 1982
        *Lau, 1986
        Appelbaum, 1978, 1979
        Barnett and Lee, 1985
        Berndt and Khaled, 1979
        Christensen and Greene, 1976
        Coyle, 1989
        Deaton and Muellbauer, 1980, Ch.3
        Diewert, 1971, 1973, 1974
        Diewert and Wales, 1987, 1992
        Fuss, McFadden and Mundlak, 1978
        La France, 1985
        Lau, 1974
        Stapleton, 1981
        Varian, 1982, 1984, 1990

6.   Aggregation Across Agents in Static Models
        *Deaton and Muellbauer, 1980, Ch.6
        *Chambers, 1988, Ch. 5.6 - 5.9
        Berndt, Darrough and Diewert, 1977
        Blackorby, Boyce and Russell, 1978
        Chambers and Pope, 1994
        Coyle, 2002
        Debreu, 1974
        Diewert, 1977, 1980a
        Gorman, 1953, 1980
        Lau, 1980
        Mantel, 1977
        Pope and Chambers, 1989
        Shafer and Sonnenschein, 1982
        Sonnenschein, 1973

7.   Aggregation Across Commodities: Non-Index Number Approaches
        *Deaton and Muellbauer, 1980, Ch.5
        Blackorby, Primont and Russell, 1978
        Bliss, 1975, Ch.5

Blundell and Robin, 2000
Coyle, 1993a
Gorman, 1959
Lewbel, 1996

8.   Index Numbers and Flexible Functional Forms
        *Diewert, 1976
        Allen and Diewert, 1981
        Caves, Christensen and Diewert, 1982
        Deaton and Muellbauer, 1980, Ch.7
        Diewert, 1978, 1981c
        Hulten, 1973

9.   Models of Technical Change
        *Chambers, 1988, Ch. 6
        *Diewert, 1980b
        Acemoglu, 2002
        Berndt, 1983
        Berndt and Christensen, 1983
        Berndt and Fuss, 1986
        Berndt and Hesse, 1986
        Blackorby, Lovell and Thursby, 1976
        Caves, Christensen and Diewert, 1982
        Chambers, 1989
        Chavas and Cox, 1988, 1990
        Clark and Youngblood, 1992
        Cox and Chavas, 1990
        Denny and Fuss, 1983
        Epstein and Denny, 1980
        Hulten, 1986
        Lau, 1982
        Morrison, 1986
        Ball, 1985
        Capalbo and Denny, 1986
        Capalbo and Vo, 1985
        Kislev and Peterson, 1981
        Romer, 1990

10.   Measurement of Technical and Allocative Efficiency
        *Kumbhakar and Lovell, 2000, Ch. 2-4 (esp. pp. 63-80, 90-93, 136-139, 154-166)
        Aigner, Lovell and Schmidt, 1977
        Charnes, Cooper, Lewin and Seiford, 1994
        Ferrier and Lovell, 1990
        Greene 1993, 1997
        Jondrow, Lovell, Materov and Schmidt, 1982
        Kopp and Diewert, 1982

Kumbhakar, 1997
Schmidt and Lovell, 1979

11.   Production Models with Uncertainty
        *Varian, 1992, Ch.11
        *Coyle, 2003
        Anderson, Dillon and Hardaker, 1977
        Coyle, 1992,1999
        Deaton and Muellbauer, 1980, Ch.14
        Epstein, 1978
        Hartman, 1976
        Just and Pope, 1979
        Laffont, 1989
        Meyer, 1987
        Newberry and Stiglitz, 1981
        Pope, 1980
        Pope and Chavas, 1994
        Pope and Just, 1995, 1998
        Robison and Barry, 1987
        Sinn, 1983

12.   Comparative Dynamics: An Introduction and the Primal-Dual Approach
        *Caputo, 1990a
        Arrow and Kurz, 1970, Ch.2
        Berndt, Morrison and Watkins, 1981
        Caputo, 1990b, c
        Epstein, 1981b
        Epstein and Denny, 1983
        Hestenes, 1966
        Intriligator, 1971, Ch.11-14
        Kamien and Schwartz, 1981
        Nagatani, 1981
        Takayama, 1985, Ch.5 and 8