This course applies the latest economic thinking and research to the task of analyzing real estate market fundamentals, forecasting supply/demand, choosing locations. In addition to the two weekly lectures, and readings, the course involves 5 largely computer-based exercises (30% of grade), a mid term and final exam (35% each of grade). The exams are 1½ hours each and cover material in each half of the course.

The course materials are two. First, there will be 12 lecture PPT files that represent the material in the lectures (see outline below). *Revisions to these will be posted on the course web site just prior to each set of lectures.* This material represents a significant update and expansion of the text DiPasquale and Wheaton, Economics and Real Estate Markets (Prentice Hall, 1996). The text is available at the MIT Coop, but the lecture files will enable students to cover the material without purchase of the text. Second, there is a set of journal articles (listed below) that are all posted on the course website (either as URLs or PDF files). These are required reading and can also be downloaded.

**COURSE OUTLINE**

I. Introduction (9/6, 9/11)
   A. The Real Estate Sector: the Capital and Property markets
      1. Review of Economic concepts
   B. Micro and Macro economic analysis
   C. **EXERCISE:** Comparative statics: predicting changes in real estate markets (9/11-9/18)

II. Residential land markets: prices and land use (9/13, 9/18)
   A. Location and rents: the indifference principle
   B. Submarkets and land use segregation
   C. Urban growth, rents and prices

III. Residential development (9/20, 9/25)
   A. The highest use for residential development
   B. Location, land use and density
   C. Transition between land uses (gentrification)
   D. **EXERCISE:** determining optimal housing FAR (9/25 – 10/2)

IV. Industrial Location (9/27)
   A. Historical development and changing technology
   B. Transportation and shipping costs
   C. Tax and public policy effects

V. Office location: Edge Cities (10/2, 10/4) *no class on 10/9*
   A. The office market and the Labor Market
   B. Theories of Multiple centered cities.
      1. Agglomeration and clustering
      2. The commercial Land Market
VI. Retail Development (10/11, 10/16)
   A. Retail Travel patterns and the distribution of stores
   B. Pricing and spatial competition
   C. Shopping centers, store clustering, agglomeration
   D. **EXERCISE**: simulating potential shopping center demand (10/11-10/18).

VII. Local Government and land markets (10/18, 10/25)
   A. Property taxes, public expenditure and local services
   B. Community choice, "capitalization", and income segregation
   C. The fiscal incentives for land use regulation

**MID-TERM EXAM (10/23 – in class, on material in sections I-VI)**

VIII. Regulating Development (10/30-11/1)
   A. Public goods and "Neighborhood" effects.
   B. Internalizing external effects through government or contracts.
   C. Congestion, transportation infrastructure, planning regional development.
   D. **EXERCISE**: evaluating the Washington D.C. Metro (11/1-11/8).

IX. Macro analysis of housing (11/6, 11/8, 11/13)
   A. Units, households and Tenure choice
      1. Demographic, economic influences
   B. Housing appreciation, mortgages and the cost of owning
   C. Moving, Vacancy and Sales: the demand for housing quality.

X. Macro Analysis of non-residential property (11/15, 11/20)
   A. The operation of non-residential Markets.
      1. Vacancy, Absorption, market frictions
      2. Leasing, term structures.
   B. Long term trends in space usage and demand.
   C. Herd Behavior and Development "games".

XI. Time Series Analysis of Real Estate Markets (11/27, 11/29, 12/4)
   A. The time-series properties of housing and commercial space markets.
   B. Stock-Flow Theory and Real Estate Cycles.
   C. Expectations, information, "efficient markets".
   D. The issue: can markets be forecast?
   C. **EXERCISE**: Developing a housing market forecast (11/29- 12/6)

XII. Regional Growth and Real Estate Markets (12/6) Review (12/11)
   A. The Determinants of metropolitan growth
      1. Export demand and Industrial development
      2. Birth rates, migration and Wages
   B. A model analyzing metropolitan growth
      1. Demand and Supply Shocks, real estate and the cost of living

**FINAL EXAM: (TBD week of 12/17-12/21, on material is sections VII-XII)**
I. Introduction, micro, macroeconomics: DiPasquale and Wheaton, Chapters 1, 2.

Wheaton, W. et al., “100 years of Commercial Real Estate Prices in Manhattan”, Real Estate Economics, 37, 1 (2009), 69-84.

II. Residential Land Markets: DiPasquale and Wheaton, Chapter 3.


III. Residential Development: DiPasquale and Wheaton, Chapter 4.


IV. Industrial Location: DiPasquale and Wheaton, Chapter 5.


V. Office Location and Edge Cities: DiPasquale and Wheaton, Chapter 5.


VI. Retail Development: DiPasquale and Wheaton, Chapter 6.


IX. Macro housing analysis: DiPasquale and Wheaton, Chapters 8,9,10.

Todd Sinai and N. Souleles "Owner Occupied Housing as a Hedge against Rent Risk”, *Quarterly Journal of Economics*, (May, 2005), 763-789.


X. Macro Analysis of Non-residential property: DiPasquale and Wheaton, Chapters 11,12.


XI. Time Series Analysis of Real Estate Markets.


XII. Regional Growth and Real Estate Markets: DiPasquale and Wheaton, Chapter 7.


