Course Description

The real estate development process is extremely dynamic, with each project emerging within a unique and ever-shifting political, economic, and social context. While developers are entrepreneurs motivated to take on the risk of development in exchange for financial returns on their investment, this is not their only driver and they do not act alone. The development process is distinctively collaborative and interdisciplinary, creating a decision-making environment that requires the skillful coordination of a variety of professionals using their expertise, strategic interaction, and resource management to enhance the social and economic value of the built environment.

This course is offered at a 400 level for both undergraduate and graduate students. It will provide students an introduction to the fundamental concepts and techniques applied in the real estate development process, examining both the broader economic and social context in which real estate development is situated as well as how various professions interact within this context. Case studies and a group project using an actual development sites will provide real applications of concepts and techniques learned. The overall objective of the course is to provide students with useful framework for analysis of real estate development projects, weighing the economic, social, and environmental costs and benefits for a community.

The course is divided into three parts. In the first section, students will be introduced to nuts and bolts of real estate investment. They will learn to employ multiple investment decision and valuation techniques and apply them using industry tools. In the second part of the class, students will more closely examine the real estate development process itself, using the eight stage model as a guide. In the third section of the class, we will focus on specific property types that pose interesting problems or are part of current development and redevelopment trends.

The target audience for this course matches the interdisciplinary nature of the field. While most traditional real estate courses are taught from the perspective of the department teaching them (finance, law, planning, design), this course hopes to reflect the real world interaction of various professions by involving students from a variety of departments and fields. The real estate development process involves the the merging and interaction of different actors, with different perspectives coming together to collaboratively enhance the built environment and produce both economic and social value within their communities. This course is meant to begin to build these interdisciplinary relationships in the classroom, providing the groundwork for meaningful interactions that will produce innovative collaborations in the real world.

Computer Policy: Computers are not allowed in class, unless student meets with me and signs a computer usage contract.
Course Materials:

**Required Text:** The below text will be identified on the syllabus as “ULI”. All other readings and case materials will be available through Compass.


**Financial Calculator:** I recommend you purchase a financial calculator. I use the BAII Plus, although I will also provide instruction for the HP12c and using excel for financial calculations.

**Assessment:**

**Grading Rubric:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Attendance and class participation</td>
<td>10%</td>
</tr>
<tr>
<td>Six short case studies</td>
<td>30%</td>
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<tr>
<td>Pro-forma and Argus Report</td>
<td>10%</td>
</tr>
<tr>
<td>Two Quizzes</td>
<td>20%</td>
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<tr>
<td>Final Project - Development Proposal</td>
<td>25%</td>
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<tr>
<td>Group Presentation</td>
<td>5%</td>
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<td><strong>Total</strong></td>
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**Attendance and Participation:** Attendance in this class is essential. The policy is simple. You have three allowed absences, no questions asked. These three allowed absences include illness, interviewing, etc. Any further absences will result in a subtraction of participation points. If there is a serious problem or family emergency, a note from the emergency dean will be necessary. Additionally, you will be evaluated by each of your group members at the end of the semester which will count towards three points. The remaining two points will depend on your in-class discussion and responsiveness.

**Group Work:** You will be divided into eight groups and select a property development for the final group project. You will use this property throughout the course as your case for various activities and assignments. The **Final Project** will consist of a development proposal in the form of a pitch to a venture capitalist for financial backing for your development. The proposal will include an analysis of the leasing, valuation, financing, entitlement, feasibility, and management of their proposed development. Each team will present their pitch to the class during the last two days of class.

**Case Studies:** You will analyze six short case studies to test your understanding of the assigned readings and practice applying calculation and analysis techniques. While you can work with your group on this, each student should submit the assignment individually.

**Pro-Forma and Argus Report:** Each student individually will build a Pro-Forma and Argus report, applying their knowledge of discounted cash flow models.

**Quizzes:** Two quizzes will be given testing students’ knowledge of real estate nuts and bolts. The quizzes given to undergraduate and graduate students will differ and reflect their academic level.
Course Outline:

**PART I: Real Estate Fundamentals: Concepts and Tools**
- Introduction
- Real Estate Development, Developers, and the Role of Other Professions
- The Real Estate Market and Urban Economics
- Leasing Basics - The Basis of cash flow
- Basic Calculations for Time Value of Money in Real Estate
- Basic Calculation for Direct Capitalization Approach
- Basic Calculations for Discounted cash flow
- Mortgage Basics - Mortgage Calculations and Decisions
- ARGUS Tutorial and Pro-Forma Workshop

**PART II: The Real Estate Development Process**
- Getting Started - Identifying a Project
- Getting the Financing - Sources of Commercial Equity and Debt
- Should it happen - Social and Community Desirability
- Will it work - Financial Feasibility
- Getting Approval - The Entitlement Process
- Collaborating - Public-Private Partnerships and the Expanding Role of Local Govts
- Cementing the Deal - Legal Commitments and Obligations
- Making it Happen - Construction
- Making it Work – Management
- Making it Worthwhile - Creating Value

**PART III: Trends and Issues in Developing Different Property Types**
- Multi-Family/Student Housing/Affordable Housing/Senior Housing
- Mixed Use/Transport Oriented Development/ Smart Growth
- Environmental Remediation/Brownfield Development
- Green Buildings and Green Infrastructure

**Redevelopment Topics and Trends**
- Historic Preservation, Placemaking, Right-Sizing
- The "Big Box" Show Room and the Dying Suburban Mall
- Old Warehouses, Functional Obsolescence, and Adaptive Reuse
- Nonprofit Real Estate - The Growth of Eds and Meds and the Impact on Local Government
Course Calendar

PART I: Real Estate Fundamentals: Concepts and Tools

Lecture 1: Introduction
Objectives: Clarify syllabus, materials required, and class assignments and projects.
Topics: Interdisciplinary nature of real estate development
        Real Estate Development, Developers, and the Role of Other Professions

Lecture 2:
Objective: Provide an overview of the development process, the actors involved, and how they interact;
Introduce our case study and group project;
Introduce real estate basic vocabulary;
Topics:
  - What is RD development?
  - Who are developers?
  - The role of other professions in the development process;

Readings: ULI - Chapter 1: The Real Estate Development Process;
          ULI - Chapter 3: Developers and Their Partners;

Lecture 3: The Real Estate Market and Urban Economics
Objective: Understand the economic factors and market forces influencing real estate and urban development;
Topics:
  - The real estate cycle;
  - Theories of urban growth;
  - Location decisions of firms and households;

Readings: ULI - Chapter 2: The Raw Material: Land and Demographics in the United States

Lecture 4: Leasing Basics - The Engine that Drives Property Value
Objective: Understand provisions of a lease that can affect NOI
Topics:
  - Essential Elements of a Lease;
  - Lease Types - Gross, Net, Triple Net, Percent;
  - Lease for different types of property"

Readings: Ling & Archer - Ch. 22 Leases and Property Type pg. 584-610
Assignment: Case Study #1 - Basic Lease Analysis (DUE before the next class session)
Lecture 5: Basic Calculations for Time Value of Money in Real Estate
Objective: Understand how timing and riskiness of cash inflows and outflows affect the value of real estate assets and the decision-making process.
Topics:  
- Time Value of Money;
- Loan Amortization;
- NPV and IRR;
Readings: Ling & Archer - Ch. 14 The Effects of Time and Risk on Value Pg. 381-407

Lecture 6: Basic Calculations for Direct Capitalization and Income Approach
Objective: Understand how to use market and property data to calculate different ratios used for investment decision-making and valuation, focusing primarily on cap rate and the direct capitalization method.
Topics:  
- NOI and Cap Rate;
- Debt Service and Debt Coverage;
- Multipliers and Ratios;
Readings: Ling & Archer - Ch. 14 The Effects of Time and Risk on Value Pg. 381-407  
Ling & Archer - Ch. 18 Investment Decisions: Ratios Pg. 483-499"
Assignment: Case Study #2: Investment decision using direct capitalization and other ratios

Lecture 7: Basic calculations for discounted cash flow
Objective: Understand how to develop a discounted cash flow model using forecasting and projections and how it compares to direct capitalization;
Topics:  
- Before Tax Cash Flows and After Tax Cash Flows;
- Capital Gains Tax and Depreciation;
- Discounted Cash flow;
Readings: TBD

Lecture 8: Mortgage Calculations and Decisions
Objective: Understand elements of a mortgage, mortgage types, and how borrowers and lenders make financing decisions.
Topics:  
- Mortgage provisions, types of loans, how much to leverage;
- Alternative financing structures;
- Land Acquisition and Construction Loans;"
Readings: Ling & Archer: Chapter 16: Commercial mortgage Types and Decisions
Assignment: Case Study #3: Investment decision based on DCF model & tax
Lecture 10: Getting Started - Identifying a Project
Objective: Understand the use of market research and community needs as sources of development ideas.
Topics:
- Motivations and Strategies Behind Real Estate Ideas;
- Market research;
- Community Needs Assessment;
- The Comprehensive Plan as a development roadmap;
Readings:
ULI - Chapter 10: Stage One: Inception of an Idea;
ULI - Chapter 12: Stage Two: Refinement of the Idea;

QUIZ #1 - Basic Real Estate Math

Lecture 11: Should it happen - Project Social and Community Desirability
Objective: Understand the different analyses required to determine whether a project is economical feasible and socially desirable;
Topics:
- Who are the community stakeholders?
- Sustainability costs and benefits; The politics and social implications;
- Cultural Heritage and Preservation vs. Restriction and Regulation;
- Supply vs Demand driven development;
Readings:

Lecture 12: Will it work - Project Financial Feasibility
Objective: Understand the different analyses required to determine whether a project is economical feasible and socially desirable;
Topics:
- Market Analysis and Locational Analysis;
- Usage Concept;
- Competition Analysis;
- Risk Analysis;
Readings:
ULI - Chapter 17: Market Analysis;
ULI - Chapter 16: Stage Three: The Feasibility Study;

Assignment: Case Study #4: Feasibility Study
Lecture 13: Getting the Financing - Sources of Commercial Equity and Debt
Objective: Understand primary sources of public and private commercial equity and debt;
Topics:
- How to calculate debt capacity and equity requirements;
- Different types and sources of financing;
- Private Syndication and REITS;
Readings: ULI - Chapter 7: Real Estate Finance: Background;
ULI - Chapter 8: Real Estate Finance: Logic behind financing decisions

Lecture 14: Getting Approval - The Entitlement Process
Objective: Provide an overview of the entitlement process and the role of local government in development;
Topics:
- Land development controls;
- Use zoning and form-based codes;
- FAR, density, dimension controls, parking ratios;
Readings: ULI - Chapter 13: The Roles of the Public Sector
Assignment: Case Study #5: Financing

Lecture 15: Collaboration - Expanding Role of Local Govts
Objective: Understand the active and complimentary role local government plays in the development process, from financing to visioning;
Topics:
- Public/Private partnerships
- Financing tools and incentives;
- Community led development;
Readings: ULI - Ch. 14 Meshing Public and Private Roles in the Development Process
Assignment: Case Study #6: Entitlement

Lecture 16: Cementing the Deal - Legal Commitments and Obligations
Objective: Understanding the negotiation process, final contract, and other legal issues;
Topics:
- Negotiating with design, tenants, financiers, government;
- Contracts, obligations and other legal issues;
- Due Diligence;
Readings: Chapter 19: Stage Four and Five: Contract Negotiation and Formal Commitment
Lecture 17: Making it Happen - Construction
Objective: Understand the construction process, phases, timing, and possible problems;
Topics:
- Construction Management Issues;
- Timing is everything - Cost of delays
- All about relationships;
- Other issues;
Readings:
ULI - Chapter 20: Stage Six and Seven: Construction, Completion and Formal Opening

QUIZ #2 - Finance, Feasibility, and Entitlement

Lecture 18: ARGUS Tutorial and ProForma Workshop
Objective: Understand how to put together a Pro-Forma and the basics of Argus
Topics:
- In-class workshop applying DCF and Projections
- Using Argus
- Pro-forma uses and applications
Assignment: PRO-FORMA Report

Lecture 19: Making it Work - Management
Objective: Understanding how to maintain value through proper management;
Topics:
- To Buy or Manage?
- Long term holding strategies;
- Construction Loan to Commercial Loan;
Readings
ULI - Chapter 21: Stage Eight: Property, Asset, and Portfolio Management

Lecture 20: Making it Worthwhile - Creating Value
Objective: Understanding how value can be created by changing use, appearance, and income;
Topics:
- Changing Use – Opportunities and Challenges;
- Marketing and community engagement;
- Improving NOI through good management;
- The spillover effects;
Readings:
Ch. 21: Enhancing Value through Ongoing Management pg. 558-583
### PART III: Trends and Issues in Developing Different Property Types

#### Lecture 21: Multi-Family/Student Housing/Affordable Housing/Senior Housing

**Objective:** Understand the fluctuation in multi-family housing development post crisis;

**Readings:** TBD

#### Lecture 22: Mixed Use/Transport Oriented Development/ Smart Growth

**Objective:** Understand the entitlement and regulatory challenges of mixed use development and weighing economic and social changes that TODs promise.

**Readings:** TBD

#### Lecture 23: Environmental Remediation/Brownfield Development

**Objective:** Understand the financial and regulatory challenges presented by environmental deteriorated properties and public financing tools for development;

**Readings:** TBD

#### Lecture 24: Green Buildings and Green Infrastructure

**Objective:** Examine the social and financial costs and benefits of the sustainable development approach as well as the impact of government green infrastructure investment;

**Readings:** TBD

#### Lecture 25: Redevelopment Topic - Historic Preservation, Placemaking, Right-Sizing

**Objective:** Understand the variety of economic social benefits of preservation and the spark effect of placemaking;

**Readings:** TBD

#### Lecture 26: Redevelopment Topic - The Big Box Show Room and the Dying Suburban Mall

**Objective:** Understand how the internet has changed retail both in traditional malls as well as in "Big Box" anchored strip centers and how grocery anchored centers as well as healthcare tenants have become the trend;

**Readings:** TBD

#### Lecture 27: Redevelopment Topic - Old Warehouses and Functional Obsolescence

**Objective:** Understand functional obsolescence, adaptive reuse, and the success of creative adaptation of industrial into mixed-use, loft housing, and data storage centers;

**Readings:** TBD

#### Lecture 28: Nonprofit Real Estate – Regional Development Drivers with Local Costs

**Objective:** Understand the impact on local government revenues of the growing nonprofit Sector, particularly Eds and Meds;

**Readings:** TBD