THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

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PLAN 575

Real Estate Development
Maymester 2017
Wednesday May 17 – Friday June 2
11:30 a.m.- 2:45 p.m.
New East 301

Instructor

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Course Description

Rigorous examination of real estate development from the entrepreneurial and public perspectives. Emphasis on risk management and the inherent uncertainties of development. The four dimensions of real estate are addressed: legal/institutional, physical,financial and economic/market. No prerequisites.

The course meets the undergraduate experiential education (EE) requirement.

Method of Instruction

The instructor combines lectures, reading assignments and case studies with field trips, interviews with real estate professionals and independent field work to master important concepts. Students with different knowledge and experience are teamed to improve learning outcomes.

Honor Code

The UNC Honor Code states: "It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and to support the enforcement of the honor code, which prohibits lying, cheating, or stealing when these actions involve academic processes or University, student or academic personnel acting in an official capacity."

Rationale for Experiential Education

Real estate development is not a field of deep scholarship. Most academic work focuses on real estate investment and finance. Development creates physical assets that have economic value and long lives. Development changes the built environment in profound ways that impact everyone.

The four dimensions of real estate development will be addressed with experiential education (EE). The field work and field trips are primarily designed to expose students to the built environment, recent projects and the participants of the development process. Concepts discussed in class will be applied to real world development situations.

Grading

Assignment #1 CD/MD analysis	10%
Assignment #2 DCF analysis	5%
Government financing tools memo	5%
Dispute resolution in-class report	5%
Field Trips – Team report	15%
Field Work:Team - In-class presentation	10%
Field Work – Individual paper	10%
Attendance & in-class participation	5%
Final Examination	35%

Text

Godschalk, David R. & Emil E. Malizia, *Sustainable Development Projects.* Chicago: APA Press, 2013 available online or from the instructor.

Lecture notes and assigned readings will be provided as handouts or distributed via email. Sakai will not be used.

Reading Assignments

You should set aside time each day to complete readings to avoid having to catch up at the end of this very short term. You have only 15 days to complete all readings and assignments. The major reading assignments include:

Graaskamp chapter (pdf)
Text Skim Preface & Ch. 1;
Text Ch. 2, pp. 12-17
Text,Ch. 3-4 use to complete Assignment #1
Text, Ch. 5
Text, Ch. 6 use to complete Assignment #2
Text, Ch. 7
Text, Ch. 8
Market analysis, proposed apartments, Level C (pdf)

You are also expected to use handouts and other materials provided in class to reinforce in-class discussions and readings.

Course Calendar	Topics
05/17	Introductions: Student interests in real estate development; relevant background, experience or knowledge Detailed syllabus review: discuss content, assignments, field work, field trips & coordination of all aspects of the course Time commitments & expectations Reading assignments & references Review content of the text Note all due dates Team Formation: student teams to conduct field trips and field work Identification of team members Discussion of potential projects in NC Field work – Team assignment Field work – Individual assignment (interviews) Field trips to Raleigh and Durham Strategies for completing field trips and field work The real estate development process: detailed discussion of content, milestones, basic concepts & terminology Participants in development: Roles of consumer, producer & government Development team & decision criteria Risk management: General techniques & specific tools See Graaskamp reading
05/18	Economic dimension: Land use economics, urban spatial structure, economic location Site selection & site control Physical dimension: Small-area plans (ULI boards), placemaking & urban design Application: Vibrant places/centers, review of vibrant centers research – measures of vibrancy and results
05/19	Financial analysis: Back-of-the-envelope, static financial analysis & dynamic financial analysis Cost-driven/Market-driven analysis Real estate lending: underwriting criteria
05/22	Financial analysis: Review of Assignment #1; review of apartment design alternatives in Text Revenue-expense analysis – project timeline & cash flows for solvency Review example in Text, Ch. 5

Financial analysis: DCF basic concepts & structure, review of Ch. 6 example
Financial plan
Ownership structures

05/23 Financial analysis: Review assignment #2 – DCF analysis

Physical dimension: construction types, management of construction
Physical/economic dimension: construction contracts, capital budgeting
Challenges in construction

05/24 Construction –continue
Environmental factors in RED: Phase I-III environmental analysis, LEED, green development

Legal dimension: Political economy discussion; government's role in capitalist economies – historic and current
Roles of government in RED – 1) Regulation
Long-range planning, zoning, CIP, project review
2) Infrastructure provision & financing tools
3) Development facilitation – PPPs

05/25 Legal dimension: Bluebell negotiation exercise & in-class de-briefing
Set up 8 two-person teams, 4 on each side, & conduct 4 negotiations
Add a topic to negotiate beyond those in the exercise

Community relations: Discussion question
Why do so many people hate real estate development?

Economic dimension: Real estate market analysis
Level C analysis of apartment project
Real estate appraisal

05/26 Time to devote to field trips and field work

05/29 Economic dimension: Commercial leases

05/30 Cover any important topics requiring additional attention
Course review: go over review questions & student-generated questions

05/31 Field work presentations
Discussion of final exam

06/01 Reading day

06/02 Final exam

Note: Class sessions will usually be divided into two parts: A) 11:30 a.m.-1:00 p.m. and B) 1:15 p.m.-2:45 p.m.

Field Work – Team Assignment

Development project review

Identify a large, important commercial development project ($10 mill. or more) recently completed in North Carolina

Teams should work on projects that they can visit at least once. Gather as much information as you can on the internet including the project's website and public opinion about the project.

Determine the development timeline:

- What were the approximate dates from idea inception through stabilized occupancy?
- How many months did it take for the developer to go from original idea to receiving public approvals?
- How many months did construction take – from building permit to CO?
- How long did it take from CO to achieve stabilized occupancy (or target sales)?

Describe the project

- Property type or types if mixed/multi use
- GBA by property type
- Location – city & subarea: downtown redevelopment, suburban greenfield project
- Cost – try to distinguish land/site costs, site development costs, hard construction costs & soft costs

Development team identification

- Developer
- General contractor
- A&E firm –architect & engineers
- Attorney
- Commercial banker financing construction

Significant features of the project

- Is the project noteworthy in some way?

Challenges

- Describe one or more important problems tacked by the development team

Prepare a powerpoint on the project including information collected on the the points above

Present to the class on May 31.

Send revised powerpoint to the instructor to be sent to the entire class

Field Work – Individual Assignment

Development team member interview

Conduct an in-person, skype or telephone interview.

The most valuable interview would be with the developer of the project you examined for the team assignment. Fortunately, most commercial projects are pursued by companies that have more than one partner fulfilling the developer role.

You may also interview one of the following team member associated with this project: the general contractor, construction lender, architect, or attorney.

Identify the professional you plan to interview and schedule the interview. Send the person's name and affiliation to the instructor by May 24.

Interview questions:
Current position –describe what you do
Career path – how did you come to do what you are now doing?
How did you become qualified to do this work? – combination of experience, apprenticeship and education
In the real estate course I am taking, we are emphasizing how developers and development team members manage risk during the development process.
Please describe the areas of risk that concerned you most in this development project
Which strategies did you use to manage/mitigate these risks?
Do you hafve any advice to offer to students who may want to pursue your vocation?

Write a paper on your interview (3-5 pages, 1.5 spacing). Turn in hard copy at the beginning of class on May 31.

Field Trips – Team Assignment

You are expected to take two field trips each lasting about 4-6 hours. For the first one, go to downtown Raleigh, Cameron Village, or North Hills. First read background information on websites: Downtown Raleigh Alliance, Cameron Village, North Hills-Kane Realty.

You have two weekends, Friday, May 26 and evenings during the week to makes these trips. You can make one visit or visit on several occasions. You can travel solo but going with team members has proven to be more productive.

During the Raleigh field trip(s), you are expected to 1) walk around in the area, 2) identify the gaterhing places or destinations that seem important, 3) talk with one or more pedestrians on the street. These talks are formally called intercept interviews. Ask the person why they are there and what they like most and least about the place.

When you visit downtown Durham you should focus on either the American Tobacco District or City Center District. Visiting the Central Park District is optional.

Your goal is to gain insights that inform the concept of vibrant center (refer to readings and class notes). You should talk to at least 4-5 people. Ascertain whether they are downtown workers, residents or visitors. Please address the following questions:

When are you typically downtown?
Where do you spend most of your time downtown?
Are there events that bring you downtown? If so, which ones.
Would you take friends or family who may visit downtown?
If so, where would you take them?

You should also take pictures of places or features you think add vibrancy to the downtown district.

The two general questions to keep in mind are:

What makes this place vibrant/active/interesting?
Which specific locations appear to be most important?
What seems to be missing that could increase its vibrancy?

Teams will write a short paper summarizing their findings from the Durham field trip. This paper is due on June 1st.

Assignments

Assignment # 1: CD-MD analysis

See pp. 8-9 below. Use templates provided to do the assignment.
Turn in hard-copy write-up of your analysis at the beginning of class on May 22.

Assignment #2: DCF for the apartment project described in Ch. 6

Using the template provided for this project, reduce rent by 20%
Record the negative impact on NOI, NPV and BTIRR.
Select two of the following: vacancy rate, operating expenses, degree of leverage, loan terms (rate & amortization period) or going-out capitalization rate.
Find the value of each selected factor that compensates for the 20% rent reduction such that NOI, NPV and BTIRR are restored to their original values.

Turn in hard-copy write-up of your analysis at the beginning of class on May 23.

Pulic financing tool: conduct research on the tool you were assigned & write a two-page memorandum

Due May 26.

Assignment #1: Static Financial Analysis: Cost-Driven & Market-Driven Analysis

Your task is to analyze a proposed office project in the Research Triangle area. The developer proposes the construction of either a three-story or four-story office building with 60,000 square feet (SF) of gross building area (GBA). The design of the project results in a building efficiency ratio of 85%. The most attractive site is off 15-501 in Durham near the I-40 interchange. The site is 4.309 acres and the asking price is $542,000. This site is more than adequate for the building footprint, associated parking, and landscaping.

Preliminary construction numbers indicate a construction "hard cost" of $120 per SF. Construction interest for the 15-month construction period, indirect costs for design, legal work and other "soft costs" are estimated to be 30% of hard costs.

The lender is offering permanent debt financing at a rate of 4.5% amortized over 20 years, with monthly payments and a 10 year term with a call provision at that time. The annualized monthly mortgage constant on such a loan is 0.0759179. The lender will apply a 75% loan to cost ratio (L/C) and use a debt coverage ratio (DCR) of 1.25 to underwrite the project.

The developer is seeking investors who are willing to provide the equity and want to earn 12% cash-on-cash return (12% on equity invested).

Analysis of comparable projects indicates that annual operating expenses will average $2.50 per SF of space (GBA). Conversations with the local assessor's office indicate that the rate for real estate taxes is $1.20 per $100 value. The appraiser will use the cost of the project as its initial assessed value.

The market for office space is gradually improving, and demand for small buildings is growing. When lease up is completed (i.e., first year of stabilized operations), the project should have a vacancy rate of 15%. Rents are expected to stabilize at $24.00 per SF of leasable space, paid on a gross basis (i.e., the owner pays operating expenses and real estate taxes).

Assignment #1: Analysis of the Project

Using the Cost driven and Market driven approaches, answer the following questions:

1. Construction cost estimate

   How much will it cost to construct the proposed three-story building including land?

2. Income analysis

   What is the expected (stabilized) net operating income given expected rents for this project?

3. Cost driven analysis with loan to cost ratio

   What level of rents is necessary to support the capital costs of this project?

   How does this rent level compare to current market rents?

4. Market driven analysis with debt coverage ratio

   What are the justified mortgage amount and justified project investment using this approach?

   If estimates of the cost to construct the building and associated soft costs are firm, how much can the developer pay for the land?

   By how much would the land price have to be reduced in order to make the deal "work"?

5. Other analysis

   Can you identify any important cost item that has been omitted?

   How can you use the CD/MD analysis to estimate the amount of loan? What is that amount?