

*Cornell University*  
*College of Architecture, Art and Planning*  
*Department of City and Regional Planning*

## **CRP 5530 Concepts and Methods of Land Use Planning**

Instructor: Jennifer Minner

[j.minner@cornell.edu](mailto:j.minner@cornell.edu)

607.255.5561

Office: 214 W. Sibley Hall

Office hours: Mondays 10:30 - 2:30

Class Day and Time: Tuesdays and Thursdays, 2:55 - 4:10

Class Location: Sibley 101. Sometimes in the 3<sup>rd</sup> floor lab

Teaching Assistant: Melanie Sand

Help Session Times and Location: To be added.

[mgs257@cornell.edu](mailto:mgs257@cornell.edu)

Cell: 765-419-3774

Office Location: Sibley 312

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### **Course Overview**

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Land use planners must respond to changing conditions and evolving knowledge of environmental systems and economic, political, and development forces. They apply technical and political skills, problem-solving, and creativity to the process of creating a common vision for the future. They must propose solutions for reconciling multiple and often conflicting goals and for addressing social equity. The concepts and methods that planners apply today will have durable consequences; the decisions and plans of today will continue to influence the development, transportation, and development patterns of communities into the future.

This course provides an overview of land use planning concepts, frameworks, institutions, movements, and methods. Students gain an understanding of land use planning at multiple scales, from statewide frameworks to local and regional government plans to small area plans. The course covers comprehensive planning methods and urban systems. It is intended to provide familiarity and proficiency with a wide range of concepts and hands-on experience in applying geographic information systems (GIS) and decision support tools to land use planning processes.

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## Course Format

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This course includes both lecture and seminar-style class discussion. There are required geographic information systems (GIS) and planning support system labs. GIS experience is not required. Students at all levels of proficiency with GIS are welcome.

Most lectures and discussions will take place in Sibley 101. We will also move to the 3<sup>rd</sup> floor lab of Sibley hall for some lab instruction and activities.

## Learning Objectives

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- Purpose and Meaning of Planning: appreciation of why planning is undertaken by communities, cities, regions, and nations, and the impact planning is expected to have.
- Plan Creation and Implementation: integrative tools useful for sound plan formulation, adoption, and implementation and enforcement.
- The Future: understanding of the relationships between past, present, and future in intervention to influence the future.
- Governance and Participation: appreciation of the roles of officials, stakeholders, and community members in planned change.
- Sustainability and Environmental Quality: appreciation of natural resource and pollution control factors in planning, and understanding of how to create sustainable futures.
- Growth and Development: appreciation of economic, social, and cultural factors in urban and regional growth and change.
- Social Justice: appreciation of equity concerns in planning.
- Quantitative and Qualitative Methods: data collection, analysis and modeling tools for forecasting, policy analysis, and design of projects and plans.

## Required Texts and Materials

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The following are required textbooks. They are also on reserve at the Fine Arts library.

- Berke, Philip R., David R. Godschalk, and Edward J. Kaiser with Daniel Rodriguez. 2006. *Urban Land Use Planning, Fifth Edition*. Urbana: University of Illinois Press. **(ULUP)**
- Randolph, John. 2012. *Environmental Land Use Planning and Management*, New York: Island Press **(ELUPM)** (2<sup>nd</sup> edition)
- Additional readings will be provided.

You should also have an external USB drive that can be used for saving GIS related-work.

## Evaluation

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Weekly Lab Exercises	30%
Scales of Land Use Planning or SWOT Poster	25%
Midterm Poster	
Final Version	

Plan Evaluation Project	25%
Plan Evaluation Proposal (including criteria)	
Presentation	
Final Paper	
Final Take-Home Quiz	10%
Class Participation	10%

## Classroom Policies

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Laptops - You may bring a laptop to class; however, do not use for unrelated e-mail checking, social media, or other irrelevant and distracting tasks.

Attendance – You are expected to be in class and participate. In the event of an illness or family emergency, you must send an e-mail indicating the reason for your absence. Absences will affect your grade. More than two unexcused absences will result in a failing grade.

Academic Integrity – Your work must be your own. When you use a map, photograph, or diagram from another source or when you quote text, you must provide a reference to the artist or author. All of your work should be consistent with Cornell’s Code of Academic Integrity, available here: <http://cuinfo.cornell.edu/Academic/AIC.html>.

Note to students with disabilities: If you have a disability-related need for reasonable academic adjustments in this course, please provide the instructor with an accommodation notification letter from Student Disability Services as soon as possible. A notification letter should be provided within the first two weeks of the semester or from the occurrence of an injury or illness. I would like to invite you to set up a meeting with me to discuss needed accommodations in a confidential environment. If you have not done so already, I encourage you to meet with Student Disability Services for disability verification and determination of reasonable accommodations.

Teamwork – Although this is not a studio course, you will be expected to participate in two team exercises. The best work is typically the outcome of regularly scheduled meetings and active and cooperative team work. Your teammates will be asked to evaluate your participation and this will be figured into your participation grade.

## Tentative Course Schedule

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The contents of this syllabus may shift throughout the semester to enhance class learning objectives and outcomes. If changes are made in the readings or assignments, this information will be communicated as early as possible.

Thursday, January 23

Week 1 - Class Overview

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- Introductions, review of class structure.
- No readings due.
- Instructions for Lab 1 posted on Blackboard. You must have your digital files ready to be reviewed in class on Thursday, January 30.

Tuesday, January 28

Week 2a – Frameworks for Land Use Planning; Scales and Types of Land Use Plans

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Readings due for class:

- ULUP Chapters 1, 2, and first part of 3 to page 69.

Optional:

- Kaiser, Edward J. and David R. Godschalk. "Twentieth Century Planning a Stalwart Planning Tree." *Journal of the American Planning Association*. Volume 61, Issue 3, 1995.
- ELUPM Chapters 1.

Thursday, January 30

Week 2b – Statewide Smart Growth Policies, Growth Management

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Labs:

- **Lab 1 will be reviewed in class.** Have your lab exercise completed and either on a USB drive or on your laptop. We will first meeting in Sibley 101 and then go to the lab to review your completed lab.
- Lab 2 distributed and due next Thurs.

Readings due for class:

- ELUPM 649-664.
- Ingram, Gregory K. and Yu-Hung Hong. *Smart Growth Policies: An Evaluation of Programs and Outcomes*, Cambridge MA: Lincoln Institute for Land Policy, 2009. Available here: [http://www.fltd.com/research/general\\_tod/evaluating\\_smart\\_growth.pdf](http://www.fltd.com/research/general_tod/evaluating_smart_growth.pdf)
- Ye, Lin, Sumedha Mandpe, and Peter B. Meyer. What Is 'Smart Growth?' —Really? *Journal of Planning Literature* 19 (3), 301-315. 2005.

Optional: Meck, Stuart, FAICP. 2002. *Growing Smart<sup>SM</sup> Legislative Guidebook: Model Statutes for Planning and the Management of Change*. [http://www.huduser.org/Publications/pdf/growingsmart\\_guide.pdf](http://www.huduser.org/Publications/pdf/growingsmart_guide.pdf). Just the preface.

Tuesday, February 4

Week 3a - Local Government Comprehensive Plans

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*Guest Speaker - David Kay.*

To do:

- Upload to Blackboard submit a one paragraph proposal for a SWOT or Scales of Land Use Planning poster. Include team members.
- Prepare questions for David Kay on Smart Growth and comprehensive planning in New York State and about the City of Ithaca's comprehensive planning process. This is an excellent opportunity to grill an expert on the state of comprehensive planning locally.

Readings due for class:

- ELUPM pages 601- 609.
- Kay, David. "Do Comprehensive Plans Matter?"  
<http://cardi.cornell.edu/cals/devsoc/outreach/cardipublications/loader.cfm?csModule=security/getfile&PageID=503388>
- Read about the City of Ithaca's comprehensive planning process:  
<http://www.cityofithaca.org/departments/planning/projects/compplan.cfm>
- Skim an additional comprehensive plan. Links will be provided on Blackboard.

Thursday, February 6

Week 3b – Regional Planning

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Labs:

- Lab 2 due.
- Lab 3 distributed.

Readings due for class:

- ELUPM pages 635-649.
- Knaap, Gerrit-Jan and Rebecca Lewis. "Chapter 7: Regional Planning for Sustainability and Hegemony of Metropolitan Regionalism" in *Regional Planning in America: Practice and Prospect*.
- Carolyn G. Loh, Neha Sami, 2012. Death of a planning department: Challenges for regionalism in a weak mandate state, *Land Use Policy*, Volume 32, Pages 39-49.

February 11

Week 4a – Urban Form and Density

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Readings due for class:

- Jabareen, Yosef Rafeq. 2006. "Sustainable Urban Forms: Their Typologies, Models and Concepts." *Journal of Planning Education and Research* 26(1): 38-52.
- Campoli, Julie and Alex MacLean. "Patterns of Density" and "Designing for Density" in *Visualizing Density*. Cambridge, MA: Lincoln Institute of Land Policy, 2007.

February 13

Week 4b –Zoning, Form-Based Codes, and Other Forms of Plan Implementation; Site Analysis

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Labs:

- Lab 3 due.

Readings due for class:

- ELUPM pages 609 (beginning with Conventional Land Use Regulations) to page 633.
- Chapter 1. A Brief History of Zoning and Chapter 2. Failed Assumptions. From Elliott, Donald L. *A better way to zone: ten principles to create more livable cities*. Washington D.C.: Island Press, 2008.
- Skim New York City Zoning Handbook (on Blackboard).
- Platt, Rutherford. (2004) Chapter 7 (Property Rights: The Owner as Planner).

February 18

No class – winter break

February 20

Week 5 –Plan Evaluation

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Labs:

Lab 4 distributed.

Readings due for class:

- ULUP pages 69-83.
- Gene Bunnell & Edward J. Jepson Jr. 2011. The Effect of Mandated Planning on Plan Quality, *Journal of the American Planning Association*, (77) 4: 338-353
- American Planning Association. Comprehensive Plan Sustainability Standards. <http://www.planning.org/sustainingplaces/compplanstandards/>. Review memo on Comprehensive Sustainability Standards at

<http://www.planning.org/sustainingplaces/compplanstandards/pdf/compplansustainabilitystandards.pdf> and Scoring Matrix at <http://www.planning.org/sustainingplaces/compplanstandards/scoringmatrix.doc>.

- Vitor Oliveira and Paulo Pinho (2010). Evaluation in Urban Planning – Advances and Prospects. *Journal of Planning Literature*, 24(4), 343-361.

Optional

Ryan, Brent D. "Reading through a plan." *Journal of the American Planning Association*. Volume 77, Issue 4, October 2011, p. 309-327.

February 25

Week 6a – Plan-making Process and Participation; Existing Conditions Community Inventories and Planning/Decision Support Systems and Indicators

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Readings due for class:

- ELUPM - Chapter 4, 5
- ULUP – Chapter 4

February 27

Week 6b- Population Trends, Future Demand for Housing and Jobs

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Labs:

- Lab 4 due.
- Lab 5 distributed.

Readings due for class:

- ULUP – Chapter 5, 7

March 4

Week 7a - Environmental Systems: Soils, Agriculture and Food Systems

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*Guest Speaker: Becca Jablonski.*

Readings due for class:

- ULUP Chapter 6: Environmental Systems
- ELUPM Chapter 6: Soils, Agriculture, and Land Use
- PLANNING FOR FOOD ACCESS AND COMMUNITY-BASED FOOD SYSTEMS: A National Scan and Evaluation of Local Comprehensive and Sustainability Plans  
<http://www.planning.org/research/foodaccess/pdf/foodaccessreport.pdf> (2012)

- Campbell, Marcia Caton. 2004. "Building a Common Table: The Role for Planning in Community Food Systems." *Journal of Planning Education and Research* 23 (4): 341-355.

March 6

Week 7b - Environmental Systems: Water, Green Infrastructure and Low Impact Development

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**Due: You must bring your Midterm Poster to class.**

Labs:

- Lab 5 due.
- Lab 6 distributed.

Readings due for class:

- ELUPM Chapters 7-9

March 11

8a -- Landscape and Urban Ecology; Parks and Open Space Planning; Land Conservation

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**Due: Proposal for Plan Evaluation must be uploaded to Blackboard by the beginning of class.**

*Guest Speaker: Roana Tirado.*

Readings due for class:

- ELUPM Chapter 10-11 + 15

Thursday, March 13

Week 8b- Complete Transportation Systems

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Labs:

- Lab 6 due.
- Lab 7 distributed.

Lab 6 distributed Readings due for class:

- ULUP chapter 8
- Reid Ewing & Robert Cervero 2012. Travel and the Built Environment, *Journal of the American Planning Association*, 76:3, 265-29.
- Eric Dumbaugh & Wenhao Li (2010): Designing for the Safety of Pedestrians, Cyclists, and Motorists in Urban Environments, *Journal of the American Planning Association*, 77:1, 69-88
- Lawrence D. Frank, James F. Sallis, Terry L. Conway, James E. Chapman, Brian E. Saelens, and William Bachman, 2006. Many Pathways from Land Use to Health: Associations between



Neighborhood Walkability and Active Transportation, Body Mass Index, and Air Quality, *Journal of the American Planning Association*, Vol. 72, No. 1, Winter pp 75-87.

- New York State Department of Transportation, Complete Streets <https://www.dot.ny.gov/programs/completestreets>
  - National Complete Streets Coalition: <http://www.smartgrowthamerica.org/complete-streets>
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March 18

Week 9a - Scenario Planning Tools

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*Special virtual guests from Fregonese Associates - Introduction to Envision Tomorrow*

Readings due for class:

- Envision Tomorrow readings posted on Blackboard

***You are invited! (Optional, but recommended activity) on Wednesday, March 19 – 4:15 pm in Sibley 115.***

Join us in the Cities Place Technology seminar where we will have the *Virtual Guest Speaker: Brad Barnett from PlaceMatters. He will be talking about the use of open web and GIS based planning tools.*

March 20

Week 9b Envision Tomorrow II

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Labs:

- Lab 7 due.
- Lab 8 distributed.

Readings:

- Continue with Envision Tomorrow Readings and exercises

March 25

Week 10a Activity Centers and Employment Centers; Commercial Uses

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Readings due for class:

- ULUP Chapter 12
- Gibbs, Robert J. *Principles of Urban Retail Planning and Development*. Hoboken, NJ: John Wiley & Sons, Inc., 2012. Chapters 1, 6, 8.

***You are invited! (Optional, but recommended activity) on Wednesday, March 26 at 4:15 in Sibley 115***

Join us in the Cities Place Technology seminar where we will have the Virtual Guest Speaker: Garlynn Woodsong from Calthorpe Associates talking about regional scenario planning and the open source land use scenario planning tools UrbanFootprint and Rapid Fire.

March 27

Week 10b- Industrial Uses, Brownfields

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Labs:

- Lab 8 due.
- Lab 9 distributed.

Readings due for class:

- Nancey Green Leigh & Nathanael Z. Hoelzel 2012. Smart Growth's Blind Side, *Journal of the American Planning Association*, 78:1, 87-103.
- Marie Howland "Planning for Industry in a Post-Industrial World" in *Journal of the American Planning Association*, Winter 2011, Vol. 77, No. 1.
- Hollander, Justin B., Niall G. Kirkwood, and Julia L. Gold. *Principles of Brownfield Regeneration*. Island Press, 2010. Chapters 1, 2, and 4.

*Spring Break*

April 8

Week 11a - Residential Communities, Affordable Housing

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- ULUP Chapter 13
- Skim Vermont Housing Assessment Guide

***You are invited! (Optional, but recommended activity) on Wednesday, April 9 at 4:15 in Sibley 115***

Eric Brady and Kimberly Baptiste from Bergmann Associates to talk about the use of 3D in professional practice.

April 10

Week 11b - Climate Change, Natural Hazards, and Resilience

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Melanie Sand to facilitate. Dr. Minner out of town.

Labs:

- Lab 9 due.
- Lab 10 distributed.

Readings

- ELUPM Chapters 12, 13
- Quay, Ray. "Anticipatory Governance: A Tool for Climate Change Adaptation" in *Journal of the American Planning Association*. Vol. 76, No. 4, Autumn 2010.
- Olshansky, Robert B. 2006. Planning After Hurricane Katrina. *Journal of the American Planning Association* 72 (2): 147-153.
- Skim: New York Plan Association. Building Coastal Resilience. <http://library.rpa.org/pdf/RPA-Building-Coastal-Resilience.pdf> (October 2013).

April 15

Week 12a - Methods of Modeling the Urban Change; Land Suitability, Build Out, and Susceptibility to Change

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Readings due:

- Mitchell, Andy. *The ESRI Guide to GIS Analysis. Volume 3*. Redlands, CA: ESRI Press, 2012. Chapters 2 and Chapter 3 to page 128.
- Rouse, David and Andrew Dobshinsky. Memo to Garner Stoll re: Susceptibility to Change. [http://www.imagineaustin.net.s134445.gridserver.com/sites/default/files/files/iacp\\_susceptibilitymemo.pdf](http://www.imagineaustin.net.s134445.gridserver.com/sites/default/files/files/iacp_susceptibilitymemo.pdf) Dated February 16, 2010. (Last accessed March 23, 2013).

April 17

Week 12b – Assessing Building Stock; Infill, Redevelopment and Retrofitting

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Labs:

- Lab 10 due.
- Lab 11 distributed. This lab is optional and is offered for extra credit (10 points).

Dunham-Jones, Ellen and June Williamson. *Retrofitting Suburbia*. Hoboken, New Jersey: John Wiley and Sons, 2009. Chapters 2, 4, 6.

April 22

Week 13a - Green Buildings, Green Neighborhoods, EcoDistricts; Downtown Revitalization, Main Streets, and Historic Preservation, Conservation Districts

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- Skim: <http://ecodistricts.org/>
- LEED for Neighborhood Development. <http://www.usgbc.org/neighborhoods>. Read page and click on the View Credits button.
- Young, Robert. *Stewardship of the Built Environment*. Chapter 1.
- Read about the National Mainstreet Program: <http://www.preservationnation.org/main-street/about-main-street/#.Utlfx7Qo6pp>

April 24

Week 13b – Locally Unwanted Land Uses; Equity

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Labs:

- Lab 11 due. (Optional)

Readings Due:

- Carissa Schively. “Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future” *Journal of Planning Literature* 2007 21: 255.
- Portland Regional Equity Atlas. <http://clfutur.org/programs/regional-equity-atlas/maps-and-analysis/>

April 29

Week - 14a – Land Use Ethics

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- Beatley, Timothy. *Ethical Land Use*. Baltimore, Maryland: John Hopkins Press, 1994. Chapters 3-4, 11-14.

May 1

Week - 14b

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Student Presentations

May 6

Week 15

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Student Presentations

Final Poster Due in Class.

Course Wrap Up (Last Class)

## Assignments

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Assignment requirements and due dates are subject to adjustments throughout the semester. Additional instructions will be given in class and posted on blackboard.

### Lab Exercises

Lab exercises are assigned throughout the semester and are aimed at providing hands on experience with planning analysis and GIS. These exercises are related to the Scales of Land Use Planning poster assignment.

### Scales of Planning or SWOT poster (Team project – no more than 4 students per team)

In this assignment, you will create either a Scales of Planning or a SWOT poster.

#### *Option 1. Scales of Planning*

This is a poster that moves from an individual development parcel or site; to an activity center, node, or corridor; to citywide context; to regional scale. For the individual parcel or site, you may select a new development or you could select a site with development potential.

You may incorporate graphics from existing plans and other sources; however, you will be expected to generate original maps, diagrams, and text.

A final version of the poster is due at the end of the term. The final version should incorporate concepts and analysis that you learn toward the end of the semester. It should demonstrate the application of at least one GIS-based or decision support methods of analysis.

#### *Option 2. SWOT poster*

This option involves the creation of a strengths-weaknesses-opportunities-threats (SWOT) poster. Examples of this type of poster will be provided in class. This poster provides a snapshot of the “state of the community.” Like the “Scales of Planning” poster, it should give some sense that you understand the statewide and regional context for planning.

The first version of your poster is due at midterm. You will share your midterm poster in class for peer review.

A final version of the poster is due at the end of the term. The final version should incorporate concepts and analysis that you learn toward the end of the semester. It should demonstrate the application of at least one GIS-based or decision support methods of analysis.

## Plan Evaluation (Team Project)

Your task, as a team, is to become intimately familiar with a land use plan and assess the according to criteria that you articulate within the final project.

1. Provide background information about the plan. When did the planning process occur? Who initiated it? Who was responsible for drafting the plan? How was the plan adopted? Has it been implemented? Who are the “winners and losers” in this plan?
2. Assess its quality, identifying strengths and weaknesses. You should do this in two ways: 1) by selecting and applying criteria according to a system of plan evaluation from the readings and/or your independent research and 2) by delving into two or more elements of the plan and describing strengths and weaknesses in detail.
3. Interview at least one person associated with either the creation of the plan or who is otherwise familiar with it as an advocate, supporter, or critic.
4. Make recommendations for improving the plan and explain what characteristics of the plan you would adopt in your own future work.

The following are a mix of land use plans at a variety of scales.

- Coney Island Strategic Plan in New York
- Airport Boulevard Plan in Austin, Texas
- HemisFair Master Plan in San Antonio, Texas
- A Portland EcoDistrict Plan
- Seattle Comprehensive Plan
- Plan El Paso
- Comprehensive Plan for Tysons Corner. Fairfax County, Virginia
- Miami 21
- North Shore Plan: Pa'ala'a to Kapaeloa
- Kigali Sub Area Plans, Kigali, Rwanda, South Africa
- Wicker Park Bucktown Master Plan
- Buffalo Green Code
- Buffalo Brownfield Opportunities
- London Plan
- Detroit Future City
- Other plans may be suggested, but must be approved in advance.

Your team must submit a plan evaluation of at least 20 pages that applies plan criteria to evaluation the plan.

## Final Take Home Quiz

The final take home quiz will be given on the last day of class and will be due by the final exam period.

## Acknowledgements

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This course has been greatly informed by the scholarship and teaching of Robert Paterson and Elizabeth Mueller. I would also like to thank Tom Hilde, Marla Torrado, and Nathan Brigmon for sharing Envision Tomorrow and City Engine materials and also for the participation of in-person and virtual guest speakers and teaching assistant Melanie Sand.