

Spring 2019

CE 450-002: Urban Planning

Rongfang Liu

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Syllabus:
CE 450 Urban Planning
Spring 2019
Section: 002

Meeting Time:

1:00 – 4:00 PM, Th

Meeting Location:

Colton 416

Prerequisite: junior standing.

Instructor:

Dr. Liu
Office: 217 Colton
Phone Number: 5884

Office Hours:

Th: 10 AM – 1 PM or by appointment

Text Book:

Anderson, A.T., 2000. Planning the Built Environment. Planners Press, American Planning Association, Chicago Illinois. ISBN 1-884829-43-0.

Course Objectives

This course provides an opportunity for students to acquire entry level knowledge on urban planning, its principles, techniques, and uses. Topics include Land, Utilities, Transportation, and Residential areas - the basic elements of our built environment. This course emphasize practical knowledge and real world observations and student will be exposed to worldwide case studies based on cities, metropolitan areas, and other built environment.

Course Contents

1. Introduction
2. Land
 - a. Land Form

- b. Maps
 - c. The Constraints of Slope on Land Development
3. Utilities
 - a. Water Supply and Distribution
 - b. Wastewater Management
 - c. Storm Drains
 - d. Other Utilities
 4. Transportation
 - a. Transportation Planning
 - b. Street Capacity
 - c. Basic Highway Design
 - d. Parking
 - e. Transit Planning
 5. Residential Areas
 - a. Housing
 - b. Residential Density
 - c. Neighborhood Planning
 - d. Street Design
 - e. The Subdivision Process
 - f. Single Family Subdivisions
 - g. Multifamily Development
 - h. Community Facilities

Grading Policy:

1. Home Work	25%
2. Mid-term Exam	25%
3. Presentation	10%
4. Final Project	30%
5. Attendance	10%

The NJIT Honor Code will be upheld, any violations will be brought to the immediate attention of the Dean of Students. Students will be consulted with by the instructor and must agree to any modifications or deviations from the syllabus throughout the course of the semester.

At a major university like NJIT, the faculty have obligations of diverse types. Some of the duties include involvement with ASCE, TRB, and other professional organization. In addition, research activities may require faculty to attend conferences, to present papers, and to participate in other activities. The instructor will make every effort to miss as few classes as possible. In case it can't be avoided, she will arrange other alternatives to enrich the course and the learning experience.

CE 450 Class Schedule, Spring 2019

ID	Week of	Contents	Home Work
1	1/24	Introduction	Get Text book/ Read chapter 1, 2, &3
2	1/31	Land Form, Maps and Slopes	HW01 Out
3	2/7	Utilities	HW01: Due
4	2/14	Transportation Planning	
5	2/21	Street Capacity	HW 02 Out
6	2/28	Parking	HW02 Due
7	3/7	Transit Planning	
8	3/14	No Class, Spring Break	
9	3/21	Midterm	Midterm
10	3/28	Housing /Residential Density	HW03 out
11	4/4	Neighborhood planning/Street design	HW03 due
12	4/11	Potential field trip or Game Day	
13	4/18	The Subdivision Process/Single, Multiple Family Subdivision	
14	4/25	Community Facilities	Final Assignment
15	5/2	Final Presentation	
16	5/9	No class, Reading Day	
17	5/14	Final Due	Final due

Course Outcome Matrix CE 450 Urban Planning

Strategies, Actions and Assignments	ABET Student Outcomes (1-7)	Program Educational Objectives	Assessment Measures
Student Learning Outcome 1: Acquire entry level knowledge on urban planning, its principles, techniques, and uses.			
Attend lectures on land, utility, transportation residential development	1, 2, 6 and 7	1, 2	Attending classes Homework
Student Learning Outcome 2: Gain exposure to worldwide case studies based on cities, metropolitan areas, and other built environment.			
Conduct case studies and perform analysis	2, 4, 5 and 6	1, 3	Class Project Homework
Student Learning Outcome 3: Gain practical Knowledge and real world observations of city development			
Participate in field trips to public planning agencies or transportation service providers	1, 3, 5 and 6	2, 3	Field trips
Role play in debating and game teams	2, 3, 4, and 5	1, 3	Game play debate

CEE Mission, Program Educational Objectives and Student Outcomes

The mission of the Department of Civil and Environmental Engineering is:

- to educate a diverse student body to be employed in the engineering profession
- to encourage research and scholarship among our faculty and students
- to promote service to the engineering profession and society

Our program educational objectives are reflected in the achievements of our recent alumni:

1 – Engineering Practice: Alumni will successfully engage in the practice of civil engineering within industry, government, and private practice, working toward sustainable solutions in a wide array of technical specialties including construction, environmental, geotechnical, structural, transportation, and water resources.

2 – Professional Growth: Alumni will advance their skills through professional growth and development activities such as graduate study in engineering, research and development, professional registration and continuing education; some graduates will transition into other professional fields such as business and law through further education.

3 – Service: Alumni will perform service to society and the engineering profession through membership and participation in professional societies, government, educational institutions, civic organizations, charitable giving and other humanitarian endeavors.

Our Student Outcomes are what students are expected to know and be able to do by the time of their graduation:

1. an ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Revised: 2/13/18