UP 508 – Spatial Thinking and Environmental Systems
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University of Michigan
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Class Time and Location
Monday evenings, 4-7 pm, 2/3 on-line and 1/3 in person (if possible) – in person attendance will not be required

Class Overview
Urban planners help shape cities, suburbs, and, indirectly, rural areas. This class introduces the broad topics of physical planning, environmental systems, and infrastructure provision. I will combine ideas from theory and professional practice. There will be a heavy emphasis on “doing” (hands-on-drafting, hands-on-computer skills, field assessments). I expect some students in the class will be at differing levels of familiarity with different subjects. However, even if you are familiar with a particular concept through past studies, we will quickly move from concept to application. Application ‘in the real world’ always presents new challenges for all. I believe this class is important because the physical patterns of human settlements have environmental, social, and economic consequences. These consequences are often place-specific, interrelated, and, most importantly, determine the sustainability and livability of our communities.

Some of the topics we will cover:

1. Basic hand drawing/drafting conventions and use of an engineering scale
2. Visualizing and calculating net and gross density
3. Comparison of different street configurations and block forms
4. Identification of the design elements from different periods such as the City Beautiful, Modernism, and New Urbanism
5. Conceptually ‘mapping’ and critiquing an urban space
6. Information on basic infrastructure/utilities
7. Elements of a site inventory
8. Translating a site inventory into a site analysis
9. Proposing a conceptual site design based on a site analysis
10. Site planning basics –the implications of setbacks, parking requirements, vehicular and pedestrian circulation requirements, ADA requirements
11. General understanding of:
   a. soils, slope constraints,
   b. urban rivers, streams, wetlands, and flood plains
   c. habitat conservation practices and vegetation management,
   d. climate change adaptation strategies and urban heat island mitigation
12. Understanding of Hazard Plans, the National Flood Insurance Program, and the Community Rating System

Assignments
Short Assignments, Reading Responses, and Vignettes (55%)
Downtown Mapping Group Assignment (15%)
Site Inventory, Analysis, and Conceptual Site Design (20%)
Participation (10%)