Course Outline and Schedule subject to change throughout the semester (current as of 11.08.10).

UPP 502: Planning Skills - Computers, Methods and Communication

Fall 2010

Wednesday 10:00AM - 12:50PM

ADH 2232 (along with SELE 2058, as noted)

Instructor: Michael Iversen

email: miversen@uic.edu • office hours: 1:00-2:00pm (PhD Office)

SUMMARY

This course focuses on skills commonly used in planning practice to collect, analyze and present information. Particular skills include conceptualization, quantitative reasoning, data retrieval and analysis, descriptive and inferential statistics, economic analysis, population projections, ecological footprint analysis, land use analysis, written reports, oral presentations, and creating images using computer programs such as Adobe Photoshop, Adobe Illustrator, Google SketchUp and ESRI ArcGIS. This course is a prerequisite to UPP 505 and 506, in which students will apply skills to making plans.

OBJECTIVES

By the end of the course, students should be able to do the following:

- Primary
  - Be able to use tools to describe the economic, environmental and social attributes and conditions of a community.
  - Demonstrate proficiency in writing, speaking, enumerating, visualizing and computing skills.
  - Be able to demonstrate knowledge about a range of secondary data sources.
  - Be able to develop and present a community profile, in terms of scoping, inventory, and assessment.
  - Apply quantitative reasoning and appropriate analysis techniques to problem identification, detailing alternatives and selecting among alternatives.
- Secondary
  - Be able to compose professional advice combining writing, speaking, enumerating, visualizing and computing skills to offer practically relevant and professional competent products.
  - Be able to frame research questions and possess basic skills to conduct research.
  - Be able to understand a community as a complex, dynamical system in terms of the flux and cyclic processes of energy, materials, information, and costs that interact on an urban scale.

CLASS FORMAT

The course format is lecture / discussion, with the intention to maintain an open discussion classroom environment. During class discussion as well as lectures, students are encouraged to contribute questions, clarifications, and comments. There will be several sessions held in ACCC Computer Lab SELE 2058, for which students are to bring a USB flash drive.

REQUIREMENTS AND GRADING

As a student you are responsible for all material, both covered in class and contained in the assigned readings. All assigned readings are to be completed prior to the scheduled topic. All homework assignments, extra assignments, and final project are to be submitted on the due date to the instructor at the start of class (10:00am). All homework and assignments must be own work, unless otherwise noted.

Attendance and Participation: The attendance and participation portion of the student's grade will be assessed in part by regular attendance and in part by contribution of comments, questions, and discussion in class. Students are required to attend all class sessions for their full length. Students are responsible for signing an Attendance Sheet which will be provided at the start of class by the instructor. Excessive unexcused absences will reduce student's grade, and more importantly, will affect the ability to master the material in this course.

Absences: An absence will be considered unexcused unless a student has discussed their situation with the instructor and obtained approval *in advance*, or provided evidence of a valid medical or personal / family circumstance.

Tardiness: Students are to arrive at class on time (10:00am) so that there is sufficient time for lecture and discussion, and that class is not disrupted by late entries. Late arriving students are responsible for obtaining any previously issued information and announcements. Unexcused tardiness may be treated as an unexcused absence, at the discretion of the instructor.

Grading: Course grading is based on the following point structure;

▪ Attendance and Participation	20 points
▪ Homework Assignments:	130 points
▪ Extra Assignments	20 points
▪ Final Project: Community Profile:	50 points
▪ Total	220 points

Grading scale is as follows;

A	90-100%	(198-220 points)
B	80-89%	(176-197 points)
C	70-79%	(154-175 points)
D	60-69%	(132-153 points)
F	< 60%	(<132 points)

Assignment Extension Option[1]*:* Students are allowed to extend the due date by one (1) week of any one (1) Homework Assignment or Extra Assignment of their choosing (except *EX-2: Event Summary*). This does not apply to *Final Project: Community Profile*. Students are to inform the instructor of extensions via email prior to the initial due date of the assignment.

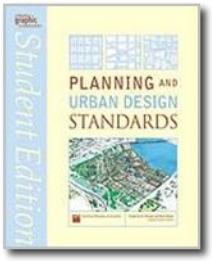
ADDITIONAL POLICIES

Refer to the *UIC Graduate Catalog 2010-12* and *UIC Student Disciplinary Policy* for applicable standards for conduct and academic policies.

[1] Effective as of 10.14.10, and includes *HW-8: Adobe Photoshop* and *EX-1: Planner Skills Interview*.

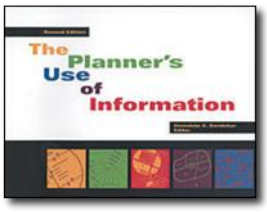
REQUIRED TEXTBOOKS

Steiner, Frederick R., and Kent S. Butler. 2007. *Planning and urban design standards*. Wiley graphic standards [student edition]. Hoboken, N.J.: J. Wiley.



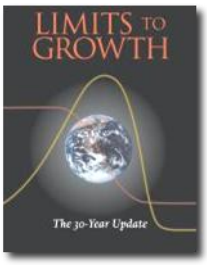
- The Student Edition is intended to teach students best practices and guidelines for urban planning and design. This book provides essential information for various types of plans, environmental factors, building types, transportation planning, mapping and GIS. In addition, expert advice guides readers on practical and graphical skills, such as mapping, plan types, and transportation planning. This recent 2007 edition will serve as a core reference text for other courses and studies throughout the MUPP degree program.

Dandekar, Hemalata C. 2003. *The Planner's use of information, 2nd edition*. Chicago: Planners Press, American Planning Association.



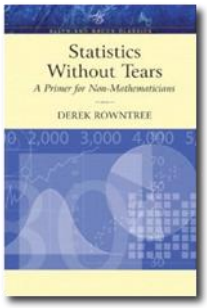
- This book has traditionally been the mainstay text of UPP 502. Edited again by Hemalata Dandekar, this second edition includes chapters by leading experts in data collection and analysis, survey methods, public participation, computer applications, communication skills, presentation methods, and planning in the political context.

Meadows, Donella H., Jørgen Randers, and Dennis L. Meadows. 2004. *The limits to growth: the 30-year update*. White River Junction, VT: Chelsea Green Publishing Company.



- This update on the 1972 classic *The Limits to Growth* brings 30 additional years of data on the consequences of overshoot in terms of ecological footprint and the dynamics of growth in a finite world. It provides a short course in the World3 computer model, types of growth, and the various kinds of overshoot likely to occur in the current century.

Rowntree, Derek. 2004. *Statistics without tears: a primer for non-mathematicians*. Allyn and Bacon classics. Boston: Allyn and Bacon.



- This text uses words and diagrams, rather than formulas and equations, to help students from all subject areas understand what statistics is, and how to think statistically. The author focuses on the ideas behind statistics only, and uses a question-and-answer presentation style to help students learn on their own.

Course Outline and Schedule subject to change throughout the semester (current as of 11.08.10).

Course Outline and Schedule

Shaded weeks indicate class is being held at ACCC Computer Lab SELE 2058.

Week	Date	Topic	Readings Due Before Class	Assignment Due in Class
1.	August 25	**Introduction** ▪ Course Overview ▪ Planning Process	**Review**: UPP 502 Blackboard (Bb*), syllabus (Bb), and textbooks.	none
2.	September 1	**Data Analysis I: Descriptive** ▪ Descriptive analysis ▪ Graphs and Tables	**Dandekar**: Ch. 4 (pp.125-142), Ch. 7 (pp.230-233). **Rountree**: Introduction, Ch. 1, 2, 3. **Tutorial**: *Excel 2007 Essential Training***	**HW 1** Select Community to Profile *(5 points)*
3.	September 8	**Data Analysis II: Collection** ▪ Research Design and Evaluation ▪ Primary Data Sources: Survey Research ▪ Secondary Data Sources: Census Data	**Dandekar**: Introduction, Ch. 1, 2, 3. **Steiner and Butler**: pp. 37-38, 329-330. **Review**: U.S. Census Bureau web site.	**HW 2** Excel and Descriptive Data Analyses *(5 points)*
4.	September 15	**GIS: ESRI *ArcGIS*** *Class held at ACCC Computer Lab SELE 2058.*	**Dandekar**: Ch. 7 (pp.235-237). **Steiner and Butler**: pp. 333-335. **UDVL Tutorial**: *GIS Tutorial for ArcGIS 9.3*	**HW 3** Secondary Data Analysis Using U.S. Census *(10 points)*
5.	September 22	**Data Analysis III: Projection** ▪ Extrapolation ▪ Cohort Survival Method	**Dandekar**: Ch. 4 (pp.142-149). **Daniels, et al.**: Ch. 7. **Steiner and Butler**: pp. 299-302.	**HW 4** GIS Using ESRI ArcGIS *(10 points)*

Week	Date	Topic	Readings Due Before Class	Assignment Due in Class
6.	September 29	**Systems Dynamics** ▪ Complex, Dynamical Urban Systems ▪ Carrying Capacity ▪ Ecological Footprint	**Dandekar**: Ch. 4 (pp.152-153). **Meadows, et al.**: Preface, Ch. 1, 2, 3 (pp. 51-57), 4 (pp. 129-141). **Steiner and Butler**: pp. 51-52 (rest of Part 2 as interested), 283-285, 377-381.	
7.	October 6	**Visualization I: Google SketchUp** *Class held at ACCC Computer Lab SELE 2058.*	**Chopra and Town**: Ch. 3, 7, 11 (Bb). **Steiner and Butler**: pp. 336-344. **Google**: pp. 13-18 (Bb)	**HW 5** Population Projection *(20 points)* ---------- **HW 6** Ecological Footprint *(10 points)*
8.	October 13	**Visualization II: Adobe Photoshop** *Class held at ACCC Computer Lab SELE 2058.*	**Dandekar**: Ch. 10. **UDVL Tutorial**: *Introduction to Adobe Photoshop*	**HW 7** Google SketchUp *(10 points)*
9.	October 20	**Economic Analysis** ▪ Shift Share ▪ Economic Base ▪ Location Quotient	**Dandekar**: Ch. 4 (pp.149-152). **Daniels, et al.**: Ch. 8 (Bb) **Steiner and Butler**: pp. 303-304.	**HW 8** Adobe Photoshop *(10 points)* ---------- **EX 1** Planning Skills Interview *(10 points)*

Course Outline and Schedule subject to change throughout the semester (current as of 11.08.10).

Week	Date	Topic	Readings Due Before Class	Assignment Due in Class
10.	October 27	**Visualization III: Adobe Illustrator** *Class held at ACCC Computer Lab SELE 2058.*	**UDVL Tutorial**: *Introduction to Adobe Illustrator CS*	**HW 9** Economic Analysis *(20 points)* *(may be submitted 11.03.10)*
11.	November 3	**Land Use Analysis** ▪ Mapping ▪ Plans ▪ Analyses ▪ Regulation	**Daniels, et al.**: Ch. 10, 17 (Bb). **Steiner and Butler**: pp. 3-31, 262-273, 320-328, 331-332, 347-349, 364-374. **University of Wisconsin-Stevens Point/Extension**: Ch. 3 (Bb).	**HW 10** Adobe Illustrator *(10 points)*
12.	November 10	**Municipal Budget Analysis** ▪ Capital Budget ▪ Operating Budget ▪ Capital Improvement Plan (CIP)	**Steiner and Butler**: pp. 401-402.	**HW 11** Land Use Inventory and Analysis *(20 points)* *(may be submitted 11.17.10)*
13.	November 17 *guest lecturer: Joshua Drucker*	**Analyzing Alternatives** ▪ decision analysis ▪ goals and alternatives ▪ measurement and monetization ▪ discounting ▪ cost-benefit analysis ▪ fiscal impact analysis	**Patton and Sawicki**: Ch.5 (pp. 207-219). **Weimer and Vining**: Ch.14 (pp. 338-357). **Freund**: 1984. **Steiner and Butler**: pp. 314-316. **Bunnell** 1997.	
14.	November 24	**Communication and Presentation** ▪ Speaking ▪ Written ▪ Graphic	**Dandekar**: Ch. 8, 9, 10. **UDVL Tutorial**: Visualizing Data	**EX 2** Event Summary *(10 points)*

Week	Date	Topic	Readings Due Before Class	Assignment Due in Class
15.	December 1	**Student Presentations of Community Profiles I**	none	**Final Project Due: Community Profile** *(35 points)* ---------- **Final Project: Presentation** *(15 points)*
16.	December 8***	**Student Presentations of Community Profiles II**	none	**Final Project: Presentation** *(15 points)*

* Bb denotes Blackboard.

** Excel tutorial: Go to ACCC at http://www.uic.edu/depts/accc/training.html/. Click on "Login to Lynda.com" and enter your UIC information. Choose 'Excel' from the 'Learn By: Software' drop-down box. Select 'Excel 2007 Essential Training'. Note: if you have experience using Microsoft Excel, you may skip the portions of the tutorial that cover operations and features of the program with which you are already familiar. The sections that are most important for our purposes are (4) Basic Formatting, (14) Importing Data, (15) Finding and Replacing Data, (16) Working with Formulas, (17) Working with Basic Functions, (18) Working with Advanced Functions, and (19) Charts.

*** Regular class time slot and location during Final Exam week (Wednesday, 10:00am – 12:50am, ADH 2232).

ASSIGNED READINGS

Chopra, Aidan, and Laura Town. 2007. *Introduction to Google SketchUp*. Hoboken, NJ: Wiley & Sons.

Dandekar, Hemalata C. 2003. *The Planner's use of information, 2nd edition*. Chicago: Planners Press, American Planning Association.

Daniels, Thomas L., John W. Keller, and Mark B. Lapping. 1995. *The small town planning handbook*. Chicago, Ill: Planners Press, American Planning Association.

Meadows, Donella H., Jørgen Randers, and Dennis L. Meadows. 2004. *The limits to growth: the 30-year update*. White River Junction, VT: Chelsea Green Publishing Company.

Rowntree, Derek. 2004. *Statistics without tears: a primer for non-mathematicians*. Allyn and Bacon classics. Boston: Allyn and Bacon.

Steiner, Frederick R., and Kent S. Butler. 2007. *Planning and urban design standards*. Wiley graphic standards [student edition]. Hoboken, N.J.: J. Wiley.

University of Wisconsin-Stevens Point/Extension. 2005. *Land use resource guide: a guide to preparing the land use element of a local comprehensive plan*. [Stevens Point, Wis.]: University of Wisconsin-Stevens Point/ Extension, Center for Land Use Education.