Any successful urban and regional planning process requires information on the current and future conditions of the community or region. UP 316 is designed to teach planning methods that help planners collect and analyze critical data in various planning processes. The first half of the semester will focus on a primary data collection method, survey. Students will learn how to design and administer an effective sample survey and how to analyze and interpret the survey results. Students will also have a hands-on experience of conducting their own sample survey research as a group project. The second half of the course will focus on other quantitative planning methods that are widely used by planners to understand demographic and socio-economic conditions of a city and its future. Planning methods covered in the course include demographic analysis, population projection, economic base model, shift-share analysis, and cost-benefit analysis.

Among the topics to be covered are:

- Designing and conducting survey research – from questionnaire design to data gathering to data analysis
- Review of statistical tools and application to survey analysis
- Demographic analysis and population projection methods
- Economic analysis techniques
- Cost-benefit analysis as a project evaluation method
- Using MS-Excel and SPSS for planning data analysis

Monday and Wednesday classes are in a lecture/discussion format. Students will learn and discuss fundamental concepts, tools, and theories of sample survey research and other planning analysis methods. Lab sessions on Friday will further explore those analytical tools in various settings, including applications to real world data and group exercises. Various exercises and assignments will be given throughout the semester because the best way to learn planning methods is learning by doing.

Students should read required readings, be prepared for class, and actively participate in class discussions. All the lecture notes will be posted on the Compass course webpage (https://compass2g.illinois.edu) to reduce the need for note taking so that students can participate in class discussion more actively.

PREREQUISITE

UP 116 Analytical Planning Methods or an equivalent introductory statistics course.


Additional reading assignments or the links to them will be posted on the Compass course webpage ([https://compass2g.illinois.edu](https://compass2g.illinois.edu)).

**REQUIREMENTS**

Students will be required to complete one group project, one exam and a series of homework/lab assignments. The class participation grade will be based on both random attendance checks and class participation. Poor attendance will not result in automatic failure, but 10% participation/attendance grade can be significant in your final grade. Class participation grade will also be affected by distracting behaviors such as tardiness and texting. The laptop computer should be used only for note taking, not for web surfing.

**GRADES** will be assigned as follows:

- Group Project: Student Attitude Survey: 20 %
- Mid-term EXAM: 25 %
- Homework/Lab Assignments: 45 %
- Participation/Attendance: 10 %

**EXAMS:** Since there is NO final exam, students are expected to commit more time and efforts to complete homework assignments and a group project.

**ASSIGNMENTS and PROJECTS:** In general, assignments are due at 2pm (class time) on the due date. Late homework assignments will be graded down by 20% per day. Several of the homework assignments are in-class or in-lab assignments. So if you miss these classes, you will not receive any credit for those assignments without a valid excuse for your absence. Detailed guides for projects will be handed out later.

**RUBRIC:** The general grading rubric for assignments and projects is as follows:

A: Demonstrates original thought and synthesis of ideas and cogent analysis, and is clearly written and presented. Outstanding work.

B: Presents above average analysis with appropriate evidence to support ideas, and is clearly written or presented. Good work.

C: Shows a basic level of understanding, with analysis limited to obvious arguments. Writing is competent. Adequate work.

D: Misunderstands or misrepresents the material, or is so poorly written or presented as to obscure the analysis. Inadequate work.
Transformation of numerical grade to letter grade will be according to the schedule below:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Range</th>
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<tbody>
<tr>
<td>A+</td>
<td>97-100</td>
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<tr>
<td>A</td>
<td>93-96.9</td>
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<tr>
<td>A-</td>
<td>90-92.9</td>
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<tr>
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<tr>
<td>D+</td>
<td>67-69.9</td>
</tr>
<tr>
<td>D</td>
<td>60-66.9</td>
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</table>

**OTHER POLICIES**

**SPECIAL ACCOMMODATIONS**

This course will accommodate students with documented disabilities. Please refer to [http://www.disability.uiuc.edu/resourceguide](http://www.disability.uiuc.edu/resourceguide) for more information and provide the appropriate documentation at the beginning of the semester.

**ACADEMIC INTEGRITY**

This course follows the guidelines set forth by the University student code. See [http://www.admin.uiuc.edu/policy/code/article_1/a1-1-401.html](http://www.admin.uiuc.edu/policy/code/article_1/a1-1-401.html) for specific guidelines, examples, and punishment associated with academic dishonesty.

**CLASS CLIMATE**

The Department of Urban and Regional Planning (DURP) is committed to creating an environment of inclusion and opportunity that is rooted in the very goals and responsibilities of practicing planners. Conduct that interferes with the rights of another or creates an atmosphere of intimidation or disrespect is inconsistent with the environment of learning and cooperation that the program requires. By enrolling in a course in the Department of Urban and Regional Planning, students agree to be responsible for maintaining a respectful environment in all DURP activities, including lectures, discussions, labs, projects, and extracurricular programs. We will be governed by the University Student Code. See Student Code Article 1—Student Rights and Responsibilities, Part 1. Student Rights: §1-102 In the Classroom.
# Course Schedule

## Introduction and Overview

**Week 1**
- **Readings:** 1/22 Introduction to UP316
- **Lab:** NO Lab in the first week

## Developing and Administering Survey

**Week 2**
- **Readings:**
  - 1/27 Rea and Parker, Chapter 1: *An Overview of the Sample Survey Process*
  - (Project 1 hand out) 1/29 Rea and Parker, Chapter 3: *Developing Survey Questions*
- **Lab:**
  - 1/31 *Must attend!* Group discussion on individually developed survey questions
- **Assignment:**
  - 1/31 Five Survey Questions Due (2 copies)

**Week 3**
- **Readings:**
  - 2/3 Rea and Parker, Chapter 2: *Designing Effective Questionnaires: Basic Guidelines*
  - 2/5 Administering surveys (Rea and Parker, Chapters 1 - 3)
- **Lab:**
  - 2/7 Introduction to SPSS: Data Import, Export, and Descriptive Statistics

## Analyzing Survey Results

**Week 4**
- **Readings:**
  - 2/10 Rea and Parker, Chapter 4: *Utilizing Focus Groups in the Survey Process*
  - 2/12 Rea and Parker, Chapter 5: *Descriptive Statistics: Measures of Central tendency and Dispersion* Chapter 6: *The Theoretical Basis of Sampling*
- **Lab:**
  - 2/14 Focus Group Exercise
- **Assignment:**
  - 2/14 Group Survey Draft Due

**Week 5**
- **Readings:**
  - 2/17 Rea and Parker, Chapter 7: *Confidence Intervals and Basic Hypothesis Testing*
- **Lab:**
  - 2/21 Data Analysis in SPSS: Cross-Tab, t-test, and ANOVA
- **Assignment:**
  - 2/21 Survey Pre-Test memo Due

## Survey Sampling

**Week 6**
- **Readings:**
  - 2/24 Rea and Parker, Chapter 12: *Regression and Correlation*
  - 2/26 Rea and Parker, Chapter 8: *Determining Sample Size*
UP316: Planning Analysis  Department of Urban and Regional Planning

Lab:  2/28  Data Entry (Coding) and Analysis of Survey Results with SPSS
Assignment:  2/28  Completed Surveys Due

Week 7
Readings:  3/3  Rea and Parker, Chapter 9: Selecting a Representative Sample

MID-TERM EXAM

3/5  EXAM

Lab:  3/7  Analysis of Survey Results and Report Writing (Group Work)

CENSUS GEOGRAPHY AND CENSUS DATA

Week 8


Lab  3/14  Downloading Census Data
Assignment:  3/14  Project 1: Survey Research Final Report Due

DEMOGRAPHIC ANALYSIS AND POPULATION PROJECTION

Week 9
Readings:  3/17  Wang and vom Hofe, Chapter 3 Demographic Analysis (pp. 53-80); Hoch, Dalton, and So, 2000, The Practice of Local Government Planning, Chapter 4 Population Analysis.

3/19  Wang and vom Hofe, Chapter 3 Demographic Analysis (pp. 65-109).

Lab  3/21  Population Pyramid

Week 10  SPRING BREAK

Week 11
Readings:  3/31  Wang and vom Hofe, Chapter 3 Demographic Analysis, Trend Extrapolation Methods (pp. 81-109).

4/2  Wang and vom Hofe, Chapter 3 Demographic Analysis, Cohort-Component Method (pp. 110-127).

Lab:  4/4  Trend Extrapolation Exercise

Week 12
Readings:  4/7  Wang and vom Hofe, Chapter 3 Demographic Analysis, Cohort-Component Method (pp. 110-127), Continued.
### REGIONAL ECONOMIC ANALYSIS

<table>
<thead>
<tr>
<th>Week 13</th>
<th>Readings:</th>
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<tbody>
<tr>
<td>4/9</td>
<td>Wang and vom Hofe, Chapter 4 Understanding Your Regional Economy (pp. 134-164)</td>
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</tbody>
</table>

**Lab:** 4/11 Cohort Component Method Exercise

**Readings:** 4/14 Wang and vom Hofe, Chapter 4 Understanding Your Regional Economy (pp. 134-164 and pp. 196-201)

**Readings:** 4/16 Wang and vom Hofe, Chapter 4 Understanding Your Regional Economy (pp. 165-194)

**Lab:** 4/18 Economic Base Analysis Exercise

**Assignment:** 4/18 Assignment 1: Population Analysis and Projection

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<thead>
<tr>
<th>Week 14</th>
<th>Readings:</th>
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<tbody>
<tr>
<td>4/21</td>
<td>Wang and vom Hofe, Chapter 4 Understanding Your Regional Economy (pp. 202-212)</td>
</tr>
</tbody>
</table>

**Readings:** 4/23 Richard Klosterman, Chapter 12 Constant-Share and Shift-Share Approaches

**Lab:** 4/25 Shift-Share Analysis Exercise

### PROJECT EVALUATION: COST BENEFIT ANALYSIS

<table>
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<tr>
<th>Week 15</th>
<th>Readings:</th>
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**Readings:** 4/30 Cost-Benefit analysis, Continued.

**Lab:** 5/2 Cost Benefit Analysis Exercise

**Assignment:** 5/2 Assignment 2: Regional Economic Analysis

<table>
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<tr>
<th>Week 16</th>
<th>Readings:</th>
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<tbody>
<tr>
<td>5/5</td>
<td>Cost-Benefit analysis, Continued.</td>
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**Assignment:** 5/12 Assignment 3: Cost Benefit Analysis due by Noon.