

SAN JOSÉ STATE UNIVERSITY
URBAN AND REGIONAL PLANNING DEPARTMENT
URBP 204B - QUANTITATIVE METHODS II: MODELING
SPRING 2012

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Office hours:	Wednesdays: 2:00pm to 4:00pm
Office location:	WSQ 218B
Class days/time:	Wednesdays: 4:00pm to 6:45pm and 7:15pm to 10:00pm
Classroom:	WSQ 208
Class website:	http://urbp204b.pbworks.com
Prerequisites:	URBP 204A with a grade of "C" or better
Units:	3

Course Catalog Description:

The modeling of basic social, economic and physical data required for urban and regional planning. Topics include economic base analysis, input-output analysis, housing market analysis, population analysis, fiscal impact analysis, and transportation-land use models.

Course Description and Course Learning Objectives:

Upon successful completion of the course, students will be able to:

1. Identify the overall strengths and weaknesses of a broad range of quantitative modeling methods (as described below in learning objective #2) and assess which model(s), given resource constraints, are most appropriate for solving a given urban and regional planning problem.
2. Construct and apply the following quantitative models:
 - a. Population and employment projections;
 - b. Gravity models; and
 - c. Multivariate regression analysis, including both ordinary least squares (OLS) regression and binary logistic regression analysis.
3. Identify the policy implications of modeling results.
4. Present quantitative data and results in text and graphic formats so that is easily comprehensible to the target audience.
5. Critique journal articles or reports that use the above-mentioned models to assess whether the methods were appropriate to address the research question and whether the conclusions were drawn logically from the results.

Planning Accreditation Board (PAB) Knowledge Components:

This course partially covers the following PAB Knowledge Components: 4.2.2.(d), 4.2.3.(c), and 4.2.3.(d). A complete list of the PAB Knowledge Components can be found at <http://www.sjsu.edu/urbanplanning/courses/pabknowledge.htm>.

Required Course Readings:

Klosterman, R.E., 1990. *Community Analysis and Planning Techniques*, Savage: Rowman and Littlefield Publishers, Inc.

Course Assignments and Grading Policy:

Your grade for the course will be based primarily on the following:

Assignment	Percent of Total Grade
Data Scavenger Hunt	10%
Extrapolation/Regression	20%
Cohort-Component	20%
Economic Analysis	20%
Gravity	20%
Class Participation/Final	10%

The course will consist of lectures and class discussions coordinated with assignments. Assignments will involve using spreadsheet templates on personal computers. All assignments must be turned in (e-mailed to both instructors) on the date due in PDF format with appropriate spreadsheets in Excel format where applicable. Assignments turned in late will have points deducted. Class sessions will often include computer lab time. However, students will be expected to complete some computer exercises outside of class.

Other Grading/Assignment Issues

The first three assignments may be resubmitted once (only one resubmittal per assignment) within two weeks of receiving the original graded submittal from the instructors. All resubmittals must be complete packages — no resubmittals will be accepted that are only portions of the assignment. All assignments must be submitted by the last day of class.

Academic Integrity Statement, Plagiarism, and Citing Sources Properly:

SJSU's Policy on Academic Integrity states: "Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Conduct and Ethical Development" (Academic Senate Policy S07-2). The policy on academic integrity can be found at <http://www.sjsu.edu/senate/S07-2.htm>.

Plagiarism is the use of someone else's language, images, data, or ideas without proper attribution. It is a very serious offense both in the university and in your professional work. In essence, plagiarism is both theft and lying: you have stolen someone else's ideas, and then lied by implying that they are your own.

Plagiarism will lead to grade penalties and a record filed with the Office of Student Conduct and Ethical Development. In severe cases, students may also fail the course or even be expelled from the university.

If you are unsure what constitutes plagiarism, it is your responsibility to make sure you clarify the issues before you hand in draft or final work.

Learning when to cite a source and when not to is an art, not a science. However, here are some examples of plagiarism that you should be careful to avoid:

- If you use a sentence (or even a part of a sentence) that someone else wrote and don't identify the language as a quote by putting the text in quote marks and referencing the source, you have plagiarized.
- If you paraphrase somebody else's theory or idea and don't reference the source, you have plagiarized.
- If you use a picture or table from a webpage or book and don't reference the source, you have plagiarized.
- If your work incorporates data someone else has collected and you don't reference the source, you have plagiarized.

The University of Indiana has developed a very helpful website with concrete examples about proper paraphrasing and quotation. See in particular the following pages:

- Overview of plagiarism at www.indiana.edu/~istd/overview.html
- Examples of plagiarism at www.indiana.edu/~istd/examples.html
- Plagiarism quiz at www.indiana.edu/~istd/test.html

If you still have questions, feel free to talk to me personally. There is nothing wrong with asking for help, whereas even unintentional plagiarism is a serious offense.

Citation Style

It is important to properly cite any references you use in your assignments. The Department of Urban and Regional Planning uses Kate Turabian's *A Manual for Writers of Research Papers, Theses, and Dissertations*, 7th edition (University of Chicago Press, 2007, ISBN-10: 0-226-82336-9). Copies are available in the SJSU King Library. Additionally, the book is relatively inexpensive, and you may wish to purchase a copy. Please note that Turabian's book describes two systems for referencing materials: (1) "notes" (footnotes or endnotes), plus a corresponding bibliography, and (2) in-text parenthetical references, plus a corresponding reference list. Students may use either style for this class, but the style must be consistent throughout the assignment.

Accommodation for Disabilities:

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

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COURSE SCHEDULE

The schedule below outlines the lecture topics and the recommended pace of the reading. The readings are for the week of the lecture. The assignments are due the day they are listed. Additional reading will be assigned for the regression unit and the gravity model. Any changes to this schedule will be announced in class with as much notice as possible.

Date	Topic	Reading	Assignments
1/25	Intro		
2/1	Excel		
2/8	Extrapolation	Klosterman, pages 1-31	
2/15	Extrapolation	Klosterman, pages 33-48	Data Scavenger Hunt due
2/22	Regression	To be announced	
2/29	Cohort-Component	Klosterman, pages 49-64	Extrapolation/Regression due
3/14	Cohort-Component	Klosterman, pages 65-99	
3/21	Cohort-Component	Klosterman, pages 101-109	
4/4	Economic Analysis	Klosterman, pages 111-124	Cohort-Component due
4/11	Economic Analysis	Klosterman, pages 125-167	
4/18	Economic Analysis	Klosterman, pages 169-204	
4/25	Gravity	To be announced	Economic Analysis due
5/2	Gravity	To be announced	
5/9	Conclusion		Gravity due
Finals Week	Presentation		