

School of Community and Regional Planning (SCARP)
University of British Columbia
COURSE OUTLINE

Course Number	PLAN 521
Course Credit(s)	3.0
Course Title	Quantitative Skills for Planners
Term	2018-2019 Winter Term 1
Days/Times	Monday 9am-12pm

Instructor	Stephanie Chang
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Office Hours	by appointment

Short Course Description

The course enables students to develop basic capabilities in working with quantitative data for analysis in professional planning practice, including the appropriate use of statistical measures. This includes developing core vocabulary, conceptual understandings, critical awareness, analytical capabilities, and computer skills.

Course Format

The class meets once a week for 3 hours. Typically, the first part of each class will consist of an interactive lecture and discussion, incorporating examples that demonstrate how specific analytical methods and planning tools are applied in practice. In the latter part of each class, students will work in small groups on exercises and discussions, often directly linked to one of the course assignments.

Course Overview, Content and Objectives

This course fulfills overall academic objectives of the MCRP program by ensuring that students (1) are familiar with information sources commonly used by planners, (2) have essential knowledge of quantitative analytical skills as they relate to defining planning problems, and (3) can demonstrate basic competency in using these skills to inform planning-related policies and programs.

This course is designed to promote learning-by-doing. Students will learn concepts through readings and individual spreadsheet-based exercises, and apply them in practical assignments. The course will use Microsoft Excel software for spreadsheet analysis.

This course aims to help students acquire literacy and develop basic capabilities in working with quantitative data for analysis in professional planning practice. This includes developing core vocabulary, conceptual understanding, critical awareness, analytical capabilities, and computer skills. The course also aims to provide students with realistic examples of how quantitative data analysis skills are used in the real world by practicing planners.

Learning Outcomes

At the completion of this course, students will be able to:

- Read, understand, and critically evaluate the use of quantitative data and methods in reports produced by other analysts;
- Identify and access information sources commonly used by planners;
- Design an effective survey;
- Conduct basic quantitative analysis relevant to planning practice;
- Effectively present quantitative data and results.

Additional Course Requirements

There are no prerequisites for this course. Enrollment is restricted to first-year MCRP students. PLAN 521 is not a statistics course per se, and competence in conducting statistical analysis is not a goal of the course. Many of the quantitative methods covered in the course are not statistical (e.g., population forecasting). Students typically come into the course with a range of prior experience with statistical analysis.

Attendance

Students are expected to attend all classes. Attendance and contribution to class discussions will be reflected in the participation component of the course grade.

Evaluation Criteria and Grading

There will be six assignments that are designed to help develop the basic level of quantitative competency required of all students. Three of the assignments will be completed individually, and three in small groups (groups will be assigned at the beginning of the term). The exercises will generally take the form of either (1) quantitative exercises with brief written explanations, or (2) short professional reports involving quantitative analysis.

% of grade	Course element	Due date
90%	6 assignments (15% each)	As noted on syllabus
10%	Participation	Throughout term

Required Readings and Videos

There is no required textbook for this course. Readings will be compiled in a course reader and made available electronically through UBC's Canvas system. Required readings will generally consist of applied examples such as reports prepared by municipal planning offices, which will be discussed in class. Students are expected to review these in advance of class, so as to be prepared for the discussions. Supplemental references such as textbook excerpts are provided for those students interested in gaining more in-depth knowledge, and are optional.

Recommended Readings

Supplemental references such as textbook excerpts are provided for those students interested in gaining more in-depth knowledge, and are optional.

Course Schedule

I. Description

- (Week 1) Introduction
- (Week 2) Effective tables, graphs, and maps
- (Week 3) Describing places, populations, activities, and change

II. Analysis

- (Week 4) Quantitative skills in planning practice
- (Week 5) *(UBC holiday)*
- (Week 6) Forecasting population
- (Week 7) Assessing service requirements; models
- (Week 8) Hypothesis testing and regression analysis

III. Data

- (Week 9) Census and statistical data; Spatial data
- (Week 10) *(UBC holiday)*
- (Week 11) Surveys and survey data
- (Week 12) Mixed methods; Research design

Special Needs

Academic Integrity

1 Assistance with the creation of a course syllabus is available through the Centre for Teaching, Learning and Technology, www.ctlt.ubc.ca Resources related to the development of assessable learning outcomes can be accessed through <http://ctlt.ubc.ca/resources/webliography/course-designdevelopment/> The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

A more detailed description of academic integrity, including the University's policies and procedures, may be found in the Academic Calendar at

<http://calendar.ubc.ca/vancouver/index.cfm?tree=3,54,111,0>.