

Analytical Methods for Planners

EVDP 635 – Winter 2013 Block

H[3-0]

Instructors

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Location / Dates / Time

PF 3150 / Feb 19-22 [TWTF] / 0900-1700h

Course Calendar Description

Approaches to identify, gather and critically analyze strategic information needed to assess planning situations and support decision-making. Focuses on both quantitative and qualitative planning methods. Potential topics include: population forecasting, trend analyses, needs assessment, program and policy evaluation, and SWOT analysis. Techniques to present information effectively. This course may not be repeated for credit.

Introduction / Objective / Organization

Planners rely on a broad range of tools or methods to help formulate policies, strategies or decisions about the built and natural environment. Therefore, planners must be capable of creating and interpreting statistics, environmental data, geographical information, resource inventories and other metrics used to inform decision making.

The main course objective is to help students develop basic skills working with quantitative data for planning analysis and decision making. This includes developing core vocabulary on key analytical terminology, conceptual understanding, critical awareness, analytical capabilities, and computer skills. These capabilities are essential in all areas of planning, from environmental to transportation, housing, and social planning.

This course combines lectures, in-class assignments, student presentations, discussions, and guest lectures from practicing planners. Students will “learn by doing”. This includes daily presentations [Wed/Thurs/Fri] on analytical methods and practical assignments using standard computer applications. The course will use software for spreadsheet analysis (MS Excel).

Students will also gain knowledge to help understand and critically evaluating the use of quantitative data and analytical methods in reports produced by other planning analysts.

Content

This course is structured into four modules consisting of environmental and urban components:

1. Quantitative methods in planning: statistical methods, graphing, forecasting
2. Environmental analysis: geospatial analysis, climate change, natural hazards, terrain, water
3. Systems level approaches: cities as organisms, planning for urban flows,
4. ‘Industrial’ ecology based analysis: material flow analysis, life cycle analysis, ‘industrial’ symbiosis

Evaluation

Presentations: 10% ea. [$n = 3$]
 Assignments: 10% ea. [$n = 2$]
 Participation: 10%
 Course Project (written report): 40%

Course Project

The course project will give students first-hand experience analysing data for planning purposes. First, students will organize into small groups and environmental and urban planning issue/topic will be assigned for which they will select a corresponding method. Second, they will obtain appropriate data and perform an analysis in order to provide information to address the planning issue/topic. Students will submit a report outlining the issue/topic, the data source, the method chosen, the results and the planning implications. The report will be due several weeks after the block course has ended (the specific due date will be determined by the instructors and specified in class).

Readings

To be discussed in class.

Software / Computing

Students will be expected to have a laptop computer on hand with MS Excel installed and wireless Internet access. Students may also be required to download free software during the course, including ESRI's ArcGIS Explorer [see software details and requirements at: <http://www.esri.com/software/arcgis/explorer/download>].

Grading Scale

| Grade | Grade Point Value | 4-Point Range | Percent | Description |
|-------|-------------------|---------------|----------|---|
| A+ | 4.00 | 4.00 | 92.5-100 | Outstanding - evaluated by instructor |
| A | 4.00 | 3.85-4.00 | 85-92.49 | Excellent - superior performance showing comprehensive understanding of the subject matter |
| A- | 3.70 | 3.50-3.84 | 80-84.99 | Very good performance |
| B+ | 3.30 | 3.15-3.49 | 76-79.99 | Good performance |
| B | 3.00 | 2.85-3.14 | 73-75.99 | Satisfactory performance |
| B- | 2.70 | 2.50-2.84 | 70-72.99 | Minimum pass for students in the Faculty of Graduate Studies |
| C+ | 2.30 | 2.15-2.49 | 66-69.99 | All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. |
| C | 2.00 | 1.85-2.14 | 63-65.99 | |
| C- | 1.70 | 1.50-1.84 | 60-62.99 | |
| D+ | 1.30 | 1.15-1.49 | 56-59.99 | |
| D | 1.00 | 0.50-1.14 | 50-55.99 | |
| F | 0.00 | 0-0.49 | 0-49.99 | |

Notes:

1. Due to the group project nature of the presentations and course project, all students registered in the course - by their registration - agree to fully participate in group work in an equitable manner. Should the instructor become aware that a student is not contributing equitably to group work they will be invited to a counseling session to correct the situation. Should there be no improvement following this session the student will be required to withdraw from the course. Similarly, if a student misses a day of class without contacting the Instructors as to the reason for the absence they will be contacted by the Instructors and may be required to withdraw from the course. Therefore, if students registered in the course know they will be missing a class, they are expected to contact and inform their project group and course Instructor. In case of illness or accident, students are expected to contact their Instructor as soon as possible regarding their situation so that accommodations can be arranged as required.
2. Written work, term assignments and other course related work may only be submitted by email if prior permission to do so has been obtained from the course instructor. Submissions must come from an official University of Calgary (ucalgary) email account.
3. It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. (<http://www.ucalgary.ca/drc/node/46>) Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.
4. Plagiarism - Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.

5. Information regarding the Freedom of Information and Protection of Privacy Act (<http://www.ucalgary.ca/secretariat/privacy>) and how this impacts the receipt and delivery of course material
6. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
7. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
8. Contact Info for: Student Union (<http://www.su.ucalgary.ca/page/affordabilityaccessibility/contact>); Graduate Student representative(<http://www.ucalgary.ca/gsa/>) and Student Ombudsman's Office (<http://www.su.ucalgary.ca/page/quality-education/academicservices/student-rights>).