

School of Environment, Enterprise and Development
Faculty of Environment
University of Waterloo

ECDEV 603
Plan/Geog 619
Analytical tools and techniques for economic development
Fall Term 1199, September 2019

Course Instructor: Paul Knafelc
Class: Friday 11:30am – 2:20pm EV1 132
Office Hours: 2:30pm until needed, EV3 4301
pknafelc@uwaterloo.ca

COURSE OUTLINE

Calendar Description

Practical application and critical appraisal of regional data, analysis and techniques used by economic developers, planners and consultants. Problem based approaches to understanding regional economies, quantitative assessment of business and industry characteristics, demographic and employment trends, and economic base characteristics. Data analysis, interpretation and contextual understanding to lead to improved decision making.

Introduction

An integral part of planning for regions and municipalities involves contributing to the decision-making process through the use of data, analysis and assessment. Practicing planners and economic development officials in municipal and regional government, policy branches of senior governments, and in private sector consulting firms are often called upon to: (1) identify the economic strengths and weaknesses of a region; (2) compare regional economic characteristics; (3) forecast employment and population; (4) estimate fiscal impacts of developments; (5) evaluate the economic contribution of local businesses and industries, and (6) make better decisions by basing them on a sound understanding of regional characteristics. This course explores the practical applications of regional data and analysis used by consultants and governments to tackle these demands. A strong emphasis is placed on using local data, quantitative approaches and evaluating the information in relevant context.

Course Objectives

The course provides individual opportunity, through assignments and discussion, to think critically and apply techniques used by practicing planners and economic developers.

Students will develop their technical skills and ability to provide critical interpretation of the results of their analysis. Through discussion, debate, assignments and practical application, students will gain an appreciation of the strengths and weaknesses of various approaches. The course will also provide students with the opportunity to present results of data analysis, defend their interpretation of the data and the methodology used, and make recommendations based upon their findings. This is a key element of the course, as these skills are required of economic developers/planners.

Learning Modes

There are three major elements to this course: lecture, applied problem solving and a term paper project. The lectures involve presentation and discussion. As a classic graduate seminar, your involvement and interaction is what will make it work. I look forward to lively discussion and debate about regional data analysis, approaches and interpretation. The second and third components involve completing assignments and the term paper in which the methods described in the lectures are applied to real world situations.

Required Text and Readings

Recommended readings will be provided as we proceed through the course and, where possible, made available on the course website.

Communication Policy

E-Mail: All electronic communication for ECDEV 603 - PLAN/GEOG 619 should be sent from your University of Waterloo e-mail address. I will try to reply to legitimate inquiries from students within two (2) business days. Please ensure that you include the course number in the subject line.

The best way to reach me for discussion is by phone. I will respond within one day to these calls. I will provide my phone number to students the first day of class.

Scheduled Office Hours or Consulting

I will hold office hours after class and encourage you to visit me should you like to discuss something. It may be best to book an appointment in advance for longer discussions (i.e. your term project). I am willing to schedule alternative days and times to discuss your term projects.

Laptop use in-class: Laptops are required in class for online data search. Accessing the internet for other purposes or using laptops off-line for non-course purposes (e.g. games, movies) is not permitted.

Assessment and Evaluation: Details

Activity	Date	Details	Evaluation Weight
Assignments	Assignment 1 due Sept. 27 Assignment 2 due Oct. 11 Assignment 3 due Nov. 1	Evaluation will be for the depth and clarity of the narratives, as well as the critical assessment of the findings. Effective use of tables and charts will also be assessed.	40%
Class participation	Each week	This grade is based on attendance and contributions to in-class discussion. Note: you are asked to attend all student term paper presentations.	20%
End-of-term presentation and paper	Abstract due Oct. 25 Term paper presentation Nov. 22 or 29 Term paper due December 6	70% of this grade will be for the written paper: 30% will be for the presentation. Presentations will occur in the final two classes.	40%

Assignments (40%)

You are welcome to form study groups to work on homework assignments; however, each student must turn in independently completed work. Assignments must be organized and well written and treated as a “report”. Assignments must also demonstrate your critical thinking and evaluation of the information, research methodology, measurement, and data. Where graphs or tables are required, they must be presented to a professional level (i.e. appropriately labeled, data source citations, etc.)

Participation (20%):

The evaluation of participation is based on a range of factors. It is a measure of how well you are engaged, as demonstrated by your involvement in discussions (posing questions, initiating discussion), responses to questions, and active listening. It is not a measure of how many times you spoke out in class, but the quality of your contributions. Attendance is necessary, but not a sufficient condition for a top participation grade. The evaluation of participation also considers the timely submission of your abstract and continuing efforts to shape your term paper topic and approach.

Term Project Paper (40%):

Each student will write and present a research report on a topic of interest. The topic must relate to regional economic activity/development; beyond that, you have flexibility to investigate an issue of personal interest. An abstract of your term project (approximately 500 words, with relevant academic source citations) is due on October 25th, 2019 for topic approval by the instructor. The written research report is due December 6th. You will be expected to deliver a presentation on your report on November 22nd or 29th.

Demonstration of critical thinking skills is required. Students are strongly encouraged to carefully consider the application of data-driven approaches to research, analysis, and decision making.

Examples of potential topics include:

- An in-depth critique or evaluation of a community's presentation and understanding of its economic characteristics/trends/strategic plan, etc.
- An in-depth critique or evaluation of a relevant article, report, etc. This could include an assessment of the data used, and the interpretation of the data.
- Development of your thesis research project. This could include an exploration of data and approaches to be applied to your thesis project. The logic behind your approach and how you plan to interpret the findings may form the basis of your report.

Computer Use

This course makes use of computer spreadsheet applications. The instructor assumes that students are able to use, on their own, the "Excel" spread sheet.

Students will learn (week 3) to use Statistics Canada Beyond 20/20 software. Please download the software in advance, found here: [Beyond 20/20 Browser for Windows operating systems \(18.2 mb\)](#)

Preparing Course Work:

Students are expected to present all of their work (written, oral) in a professional manner. This is a professional graduate program in an academic institution. The quality of students' writing and presentations should reflect this.

Grading and Late Policy

Handing in Assignments: All assignments must be submitted electronically by the beginning of class on the due date via the appropriate LEARN dropbox or by email. By submitting an assignment, you are agreeing to the following:

- You have properly referenced and footnoted all ideas, words or other intellectual property from other sources used in the completion of this assignment
- You have included a proper bibliography, which includes acknowledgement of all sources used to complete this assignment
- The assignment was completed by your own efforts. You did not collaborate with any other person for ideas or answers (with the exception of any group project)
- This is the first time you have submitted this assignment or essay (either partially or entirely) for academic evaluation

Late and/or Missed Assignments: Late submissions will be penalized 10% per day unless you have made arrangements with the instructor in advance of the deadline. Failure to make a submission or a

submission that is five days late or more will receive a grade of zero. An assessment of lateness will be based on the time stamp produced through LEARN. Late term paper texts undergo the same penalties.

Requests for Exemptions or Compassionate Considerations: Are to be discussed with me in advance. If you are ill or injured, please obtain the appropriate documentation (e.g. note from a doctor).

Assignment Grades: Please monitor your grades for accuracy and completeness. If you feel that an error has been made in the grading of your assignment, provide me with a written request for reconsideration, along with a copy of the assignment in question. I will reevaluate the assignment; however, I reserve the right to adjust your grade either upward or downward as a result of the re-evaluation.

Final Grades: will be calculated off-line and posted on QUEST. Therefore, your final grade will not be available on LEARN.

University Requirements

Academic Integrity: To create and promote a culture of academic integrity, the behaviour of all members of the University of Waterloo is based on honesty, trust, fairness, respect and responsibility. Check www.uwaterloo.ca/academicintegrity/ for more information. Students who are unsure what constitutes an academic offence are requested to visit the on-line tutorial at: <http://www.lib.uwaterloo.ca/ait/>

Consequences of Academic Offences: Within ENV, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties which may include a grade of 0 on affected course elements, 0 on the course, suspension, and expulsion. ENV students are strongly encouraged to review the material provided by the university's Academic Integrity office (see: <http://uwaterloo.ca/academicintegrity/Students/index.html>).

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Graduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline, www.adm.uwaterloo.ca/infosec/Policies/policy71.htm. For typical penalties, check Guidelines for Assessment of Penalties, www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read Policy 72 - Student Appeals, <http://www.adm.uwaterloo.ca/infosec/Policies/policy72.html>

Research Ethics: Please note that the University of Waterloo requires all research conducted by its students, staff, and faculty which involves humans as participants to undergo prior ethics review and clearance through the Director, Office of Human Research and Animal Care (Office). The ethics review and clearance processes are intended to ensure that projects comply with the Office's Guidelines for Research with Human Participants (Guidelines) as well as those of provincial and federal agencies, and that the safety, rights and welfare of participants are adequately protected. The Guidelines inform researchers about ethical issues and procedures which are of concern when conducting research with humans (e.g. confidentiality, risks and benefits, informed consent process, etc.). If the development of your research proposal consists of research that involves humans as participants, the please contact the course instructor for guidance and see: www.research.uwaterloo.ca/ethics/human

Note for students with disabilities: The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the OPD at the beginning of each academic term. Once registered with OPD, please meet with the course instructor, in confidence, to discuss your needs.

Religious Observances: Please inform the instructor at the beginning of term if special accommodation needs to be made for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

Turnitin.com: Plagiarism detection software (Turnitin) will be used to screen assignments in this course. This is being done to verify that use of all material and sources in assignments is documented. In the first week of the term, details will be provided about the arrangements for the use of Turnitin in this course. Students who do not wish to submit their assignments via Turnitin must indicate this to the instructor by the third week of class. These students will submit their material electronically via email directly to the instructor for evaluation and grading.

SCHEDULES

Class Location and Time

Lectures take place on Friday from 11:30am - 2:20pm in EV1 132.

Topic Schedule

This schedule is a guide to course topics. We may make minor adjustments from time to time. If any adjustments are made, this outline will be updated, and the updated copy posted on LEARN. Check the header for the most recent date.

Weeks	Topic
Week 1 (Sept. 6)	Introduction: Discussion of context for regional economic development/planning and the importance of understanding regional economic activity. Discussion of data and analytical approaches.
Week 2 (Sept. 13)	Introduction to socio-economic data, sources and methodologies: Understanding regional economic activity.
Week 3 (Sept. 20)	Socio-economic data continued: Mastering Statistics Canada's Beyond 20/20 software. Discuss Assignment 1
Week 4 (Sept. 27)	Introduction to analysis of the regional economy: Business and Industry Characteristics. Assignment 1 due (finding relevant data) Discuss Assignment 2
Week 5 (Oct. 4)	Analysis of the regional economy continued: Labour Markets.
Week 6 (Oct. 11)	Analysis of labour markets continued. Assignment 2 due (understanding a local economy's industrial structure) Discuss Assignment 3
Reading Week (Oct 18)	
Week 7 (Oct. 25)	Analytical Techniques: Shift Share and Location Quotients Abstract of term project due
Week 8 (Nov. 1)	Guest Speaker Myles Buck: from OMAFRA introduces the "Analyst" tool Assignment 3 due (understanding labour markets)
Week 9 (Nov. 8)	Analytical Techniques: Population Dynamics
Week 10 (Nov 15)	Analytical Techniques: Regional Economic Impact Analysis, Discussion of Input-output Models
Week 11 (Nov 22)	Final term project presentations and discussion
Week 12 (Nov 29)	Final term project presentations and discussion
Dec 6	Final term project due