

Urban Transportation, Infrastructure and Land Use EVDS 616 (3-0)

Winter 2015
Monday & Wednesday:9:30-10:45
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Introduction

In the last few decades human settlements have increasingly become more complex. For the first time in history more people live in urban centres than in rural areas, and some of these urban centres are reaching a scale and complexity difficult to grasp. Regardless of their size, these towns and cities need a series of systems that can sustain their populations' basic needs and support and foster their economic activity.

Urban infrastructure is defined as the basic underlying system of structures that provide a city's services, such as underground utilities, and they also include other services such as transportation, waste collection and open space.

It has become fundamental that planners and designers be knowledgeable of the inner workings of the infrastructure that allows cities to function, and to understand the implications and relationships for the distribution and allocation of land use and development. This course will provide a thorough understanding of the main infrastructure systems and their relationships to land use and the built environment.

Objective

The objective of this course is to provide students with an understanding of three main topics related to infrastructure:

- 1.The different systems that comprise the urban infrastructure, including the main issues related to cost and long term sustainability
- 2.The relationships between urban infrastructure, transportation, land use and quality of the public realm
- 3.The new trends in technology that deliver infrastructure and transportation service in urban centres

Content

The course will consist of a series of lectures, site visits and students' research projects.

Lectures will provide an overview of the different infrastructure systems, the way they function, the main current issues associated with delivering these services, and the challenges in achieving sustainability practices.

Site visits will help experience first hand the operation of some of the most significant infrastructure systems in the city of Calgary, and will present a unique opportunity to interact with the experts and custodians of these. Students are expected to attend all site visits, if unable to, they need to communicate this to the teaching teach.

Students will present their research of specific case studies associated with a particular infrastructure system and future technologies and research.

Evaluation

Evaluation will be based on the assignments completed during the term. There will be no final examination. The evaluation of each these five assignments will be based on the specific deliverables.

Any anticipated absence should be communicated to the teaching team as soon as possible.

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| 1. Green Infrastructure | 20% |
| 2. Land Use and Density | 20% |
| 3. Transportation | 20% |
| 4. Transit and walkability | 20% |
| 5. Future technologies research | 20% |

Total	100%
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Each component of the course must be completed in order to pass the course as a whole.

Late submission of work is not acceptable, grades will be deducted for work submitted later than the deadline specified in the assignment brief or as discussed in class. One grade will be deducted per late day for example an A will be downgraded to A-.

Grading Scale

The three projects will be evaluated as letter grades. Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range.

Grade	Grade Point Value	4-Point Range	Description
A+	4.00	4.00	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	Very good performance
B+	3.30	3.15-3.49	Good performance
B	3.00	2.85-3.14	Satisfactory performance
B-	2.70	2.50-2.84	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	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	
C-	1.70	1.50-1.84	
D+	1.30	1.15-1.49	
D	1.00	0.50-1.14	
F	0.00	0-0.49	

A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

Readings

There is no required textbook. The following are recommended resources:

American Planning Association. *Planning and Urban Design Standards*. Wiley Graphic Standards, 2006

Ascher, Kate. *The Works: Anatomy of a City*. The Penguin Press, 2005

Barrat, Claire and Whitelaw, Ian. *The Spotter's Guide to Urban Engineering*. Firefly Books, 2011

The City of Calgary. *Design Guidelines For Subdivision Servicing*. 2012 (available online)

The City of Calgary. *The City of Calgary 2010 Infrastructure Status Report*. 2010 (available online)

Notes:

1. Written work, term assignments and other course related work may only be submitted by e-mail 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.
2. Academic Accommodations. The Academic Accommodations Policy can be found at: <http://www.ucalgary.ca/access/accommodations/policy>. It is the students' responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodations and have not registered with Student Accessibility Services, please contact them at 403.220.6019. Students who have not registered with Student Accessibility Services are not eligible for formal academic accommodations. More information about academic accommodations can be found at www.ucalgary.ca/access. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.
3. 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.
4. 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
5. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
6. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
7. Contact Info for: Student Union (<http://www.su.ucalgary.ca/page/affordability-accessibility/contact>); Graduate Student representative(<http://www.ucalgary.ca/gsa/>) and Student Ombudsman's Office (<http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights>).