COURSE OBJECTIVES

The objectives of this course are:

(a) to discuss current issues in transportation, and

(b) to treat the planning and management concepts and techniques for urban transportation systems.

In this course, principles and methods are emphasized which are applicable to an integrated system of modes as well as integrated transportation and land use systems. The discussions and methodology are applicable to urban regions in a mature economy and developing countries.

September 2015
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<tr>
<th>WEEK</th>
<th>TOPIC</th>
<th>SUGGESTED READING</th>
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| 1    | Current issues in urban transportation. The transportation system and its components. Characteristics of urban transportation system. Transportation technology: introduction. Intelligent transportation systems (ITS): introduction. Transportation software: introduction | Course notes, papers  
Ref.1: Ch.1  
Ref.2 & Ref. 3  
Ref.4: Preface, Ch.1-6  
Ref.7: Ch.1,2,10,11  
Ref.8: Ch.1,2 |
| 2    | The framework for urban transportation planning and management; transportation planning and decision-making | Course notes, papers  
Ref.1: Ch.2,3  
Ref.4: Ch.7  
Ref.5: Ch.1  
Ref.7: Ch.1,2  
Ref.8: Ch.14 |
| 3    | Data acquisition, data management for transportation planning. Geographic information systems (GIS) | Course notes, papers  
Ref.1: Ch.4  
Ref.6: Ch.3  
Ref.15 (general reading) |
| 4-6  | Land use-transportation interaction. Urban activity system analysis. Demand analysis and forecasting | Course notes, papers  
Ref.1: Ch.5,6  
Ref.4: Ch.7,8  
Ref.5: Ch.13  
Ref.6: Ch.4-12  
Ref.7: Ch.3 |
| 7    | Public transit  
Supply analysis; network analysis | Course notes, papers  
Ref.12 &13: General readings  
Ref.1: Ch.7 |
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<th>WEEK</th>
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<td>8</td>
<td>Transportation system management</td>
<td>Course notes, papers</td>
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<td>Demand management</td>
<td>Ref.4: Ch.7,9</td>
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<td>Traffic management</td>
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<td>9</td>
<td>Traffic impact studies</td>
<td>Course notes, papers</td>
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<td>Environmental impacts: energy consumption, noise, air quality</td>
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<td>Ref.4: Ch.9,10</td>
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<tr>
<td>10,11</td>
<td>Transportation system and project evaluation</td>
<td>Course notes, papers</td>
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<td>Ref.1: Ch.8</td>
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<td>Ref.14: Ch.18,20</td>
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<td>Ref.16 (General reading)</td>
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<td>12</td>
<td>Program development and project implementation</td>
<td>Course notes, papers</td>
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**REFERENCE TEXTS:**

See list of references.

**MARKING SCHEME:**

- Assignments 20%
- Term paper/project 40%
- Final Examination 40%
- Total 100%

**COURSE INSTRUCTOR:**

Professor A.M. Khan  
Room No. 3044 Minto Centre  
Telephone: 613 520 2600 (EXT5786)  
Fax: 613 520 3951  
Email: ata_khan@carleton.ca

September 2015
REFERENCES+
2. Urban Transportation Task Force. Urban transit in Canada: taking stock of recent progress. 2009 [electronic text, available from library; Pages 1 to 38]

+ Information on additional references will be provided during the term.

ANNOUNCEMENTS

1. Academic Accommodation
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

**Academic Accommodations for Students with Disabilities**: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the [PMC website](#) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

**Pregnancy obligation**: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see the [Student Guide](#)

**Religious obligation**: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible...
after the need for accommodation is known to exist. For more details see the Student Guide.

2. Marked Final Examination Papers
   Marked final examinations will not be returned.

3. Students Who Wish to Audit the Course
   Please refer to Carleton University regulations.

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