

# URBAN TRANSPORT SYSTEMS

2016-17 1st Term, Mondays 9:30am - 12:15pm  
Instructor: Prof. Daniel PÄTZOLD



## Course Overview

The course will provide students with an introduction and broader understanding of history and application of complex urban transportation and infrastructure systems that are globally and locally in use and are implemented for improvement of urban realm.

The course will provide introduction to transport concepts, planning aspects, technical requirements and ways of implementation as well as guide to principles of survey and documentation.

Lectures will be combined with on site workshops and field trips to provide students and studio projects with realistic planning tools and documentation skills.

Furthermore a number of real project stakeholders will participate as conveyors of knowledge, review of student projects and to enhance matchmaking with planning industry.

## Learning Outcomes

1. To help students to appreciate how urban infrastructure systems including transportation form a fundamentally necessary role in urban planning and development.
2. To provide students and their specific projects with realistic planning tools and knowledge that are required in their studies specific context.
3. To train interaction and capabilities for the planning process in view of the many realistic interests and stakeholders but also planners involved.

### List of topics

#### Topic

- Course and Topic Introduction
- Historic overview
- Urban Pedestrian Networks and Requirements
- Development and Stakeholder engagement
- Policy and Urban Transport Systems
- Transport System Buildings
- Local Transport Networks in HK
- Urban Development and Transport Systems
- Alternative Systems

#### Contents/ fundamental concepts

- To understand course method
- Knowledge of Relevant Existing Systems
- Learn basics of Urban Design Fundamentals
- Communication and documentation skills
- Provide broad view for assessment
- Understand Planning Drivers
- First Hand Experience Precedents
- Understand Mechanics of Town Development
- Awareness for Innovation and Alternatives

## Learning Activities

**Key point:** The purpose in distinguishing between time in terms of number of hours ‘in class’ and ‘out of class’ is to note that considering student workload is an important part of course designs. Here are some examples of rough calculations one might make for a 3-credit-point course.

A student might do five 3-credit-point courses in a semester. Working on approximately 60 hours of actual study per week, this implies that students might be expected to spend about 12-13 hours a week on work associated with a 3- credit-point course. Only a small number of these hours might be in class.

- How do you anticipate students will apportion the remaining hours?
- Will this vary significantly throughout the term?

Answers to these questions should assist students in planning their work and also assist the programme as a whole in assessing likely variation in student workload.

Types of activity should be customised to suit the nature of teaching in a department.

Lecture (hr) in class	Interactive tutorial (hr) in/ out class	Lab (hr) in/ out class	Discussion of case (hr) in/ out class	Field-trip (hr) in/ out class	Projects (hr) in/ out class	Web-based teaching (hr) in/ out class	Reading (hr) in/ out class
24	0	0	6	2	8		12
M	NA	NA	M	M	M	NA NA	M

M: Mandatory activity in the course

O: Optional activity

NA: Not applicable

## Assessment Scheme

Learning Outcomes	Teaching and Learning Activities	Course Assessments
4. To help students to appreciate how urban transport systems form a fundamentally necessary role in urban planning and development.	<ul style="list-style-type: none"> <li>Lecture</li> <li>Workshop</li> </ul>	<ul style="list-style-type: none"> <li>Engagement in class activities (10%)</li> <li>Group work, project site survey and documentation of pedestrian urban environment (60%)</li> <li>Student presentation on urban transportation precedent/ case study (30%)</li> </ul>
5. To provide students and their specific projects with realistic planning tools and knowledge that are required in their studies specific context.	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class activity</li> <li>Workshop</li> </ul>	
6. To train interaction and capability to view planning process in view of the many realistic interests and stakeholders involved.	<ul style="list-style-type: none"> <li>Lecture</li> <li>Class activity</li> <li>Field Trip</li> </ul>	
7. To be aware of the professional requirements that are apparent on real projects	<ul style="list-style-type: none"> <li>Class activity</li> <li>Field Trip</li> </ul>	

### Assessment

	<i>Percentage</i>
Engagement in class activities	10%
Group work on project site survey	60%
Presentation on Precedent/ Case Study	30%

#### ***Engagement in class activities***

Students are expected to participate actively in class activities especially when guest lecturers provide introduction to related topics raising interaction with students.

#### ***Group work on project***

Students are required to undertake survey of project area under instruction of professional planners with aim to generate meaningful survey data and representation informing urban design projects with view to urban pedestrian environment.

#### ***Presentation on Case Study***

Students are required to do a very brief case study: Share understanding of an urban transportation

system, i.e. bike sharing, as introduced in course on a specific case and topic.

**Recommended learning resources:**

John J. Fruin (1971)

Pedestrian Planning and Design

Givoni, M., Banister, D. (2010):

Integrated Transport: From Policy to Practice, Routledge, London

MTRC Annual Report (2011)

<http://www.annualreports.com/Company/5379>

Burnham & Bennet (reprint 2009)

Plan of Chicago, Commercial Club of Chicago

Givoni, M., Banister, D. (2010):

Integrated Transport: From Policy to Practice, Routledge, London

Stephen Marshall (2005)

Streets and Pattern, Routledge

Larice, M. et al (2007):

The Urban Design Reader - The Routledge Urban Reader Series, Routledge, London

Websites of Transport Department, Planning Department and Town Planning Board.

Website of MTRC corporation

Slobodan Mitric (2008):

Urban Transport for Development, Towards an Operationally-Oriented Strategy, World Bank

Gunilla Joernson, Emin Tengstroem:

Urban Transport Development - A complex issue, Springer 2005

- Hans Oern : Urban Public Transport in an International Perspective, 2004

- Liya Liu: Towards Sustainable Urban Transport in China, 2004

- Paul Mees: Dispersed Wealthy Cities: A Comparison of Melbourne and Toronto, 2004

Harry Dimitriou: Urban Transport Planning A developmental Approach, 1992

USDT: Bus Rapid Transit Development in China, 2006

Kanming Xu: Best Practice for Bus Rapid Transit Development in China, 2010

Yang jiang: BRT oriented Development in China: Opportunities and Challenges, 2013



## Feedback for Evaluation

Feedback	To whom	Where	When
<b>For Teachers etc.</b>			
Qualitative feedback from students/discussion forums	Tutors and/or teacher through informal interaction	Inside and outside classroom	Throughout the term
Mid-term and end of term course evaluation	Teacher and department	Lecture room	1 month into term & end of the term
Reflection of teacher (including evidence from assessment)	Teacher and tutors	All learning activities	Throughout the term
Curriculum review	Related teacher and Program Committee	CUHK	Periodically
Visiting Committee	University, department and teacher	CUHK	Periodically
<b>For Students</b>			
Verbal feedback	Students	Inside and outside classroom	Throughout the term
E-discussion forum	Students	E-learning platform	
Feedback sheets on essays	Students	During class	After marking essays
Feedback on examination	Students	<ul style="list-style-type: none"> <li>• Teacher's office</li> <li>• E-learning platform</li> </ul>	After examination

## Course Schedule

Week		Lecture Topic	Class Activity
<b>1. Introduction to the Course</b>			
	5.Sep	Introduction to course with focus topic of “how to create low-carbon walk-able cities?”	Lecture
<b>2. Walk-able Cities Requirements</b>			
	12. Sep	Introduction to requirements and principles of walk-able city. Planning parameters and Level of Service (LOS)	Lecture
<b>3. Quantify Walk-able City</b>			
	19. Sep	Review Walk able city site survey and findings. LOS map.  Walkability qualification.	Workshop
<b>4. Local Transport Network and Development</b>			
	26. Sep	Local transport networks and their development in HK.The MTR development Model	Lecture
<b>5. History of Urban Transport Developments</b>			
	3. Oct	Introduction into historic developments and precedents of urban transportation systems.	Lecture
<b>6. Policy and Urban Transport Systems</b>			
	24.Oct	Introduction to impact of administrative policy on urban transport development and networks.	Lecture
<b>7. Transport buildings and integration</b>			
	31.Oct	Transport infrastructure integrates in urban fabric with sophisticated buildings and systems.	Lecture
<b>8. Walk-able Projects in To Kwa Wan</b>			
	7.Nov	Review of student design projects for quality of walkability and LOS	Workshop

<b>9. Alternative Systems</b>			
	14. Nov	Understand complimentary systems to typical transportation networks and their application. Introduction to Assignment.	Lecture
<b>10. Site Visit</b>			
	tbc	Visit to Transport Infrastructure project in Hong Kong	Field Trip
<b>11. Course Assignment</b>			
	28. Nov	Presentation on a case study of a transportation system similar to those outlined in course	Student presentation

### Contact details for teacher(s) or TA(s)

**Key point:** Help students to easily locate your contact information. The information allows students to arrange for any consultation after classes or receive support in terms of learning and teaching from teacher, tutors and/or teaching assistants. It is better to put both the teachers' and TAs' contact details such as name, office location, phone number and email address.

<b>Professor/Lecturer/Instructor:</b>	
Name:	Daniel PÄTZOLD
Office Location:	
Telephone:	+852 95373637
Email:	
Teaching Venue:	Mondays 9.30am – 12.15am venue tbc
Website:	
Other information:	
<b>Teaching Assistant/Tutor:</b>	
Name:	
Office Location:	
Telephone:	
Email:	
Teaching Venue:	
Website:	
Other information:	

### Academic honesty and plagiarism

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at <http://www.cuhk.edu.hk/policy/academichonesty/>.

With each assignment, students will be required to submit a signed declaration that they are aware of these policies, regulations, guidelines and procedures. For group projects, all students of the same group should be asked to sign on the declaration.

Students are required to submit a softcopy of the assignment to the VeriGuide system at: <https://veriguide2.cse.cuhk.edu.hk/cuhk/>. After submission, student should receive a receipt and an academic honesty declaration statement via an e-mail from VeriGuide. **Please print the receipt and the declaration statement and submit them to the lecturer together with a hardcopy of the assignment.**

I declare that the assignment here submitted is original except for source material explicitly acknowledged. I also acknowledge that I am aware of University policy and regulations on honesty in academic work, and of the disciplinary guidelines and procedures applicable to breaches of such policy and regulations, as contained in the website

<http://www.cuhk.edu.hk/policy/academichonesty/>

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Signature

\_\_\_\_\_

Date

\_\_\_\_\_

Name

\_\_\_\_\_

Student ID

\_\_\_\_\_

Course code

\_\_\_\_\_

Course title

## Appendix I: Grade Descriptor of the Assessment Criteria of the Essay

	A	B	C	D	F (Fail)
<b>Content</b>					
Overall structure of essay	<ul style="list-style-type: none"> <li>• A carefully articulated answer to the key questions.</li> <li>• A clear introduction outlining the structure of the essay with explicit central statement addressing the key questions.</li> </ul>	<ul style="list-style-type: none"> <li>• An effective answer to the key questions. However, some key issues may be overlooked or left out of the analysis.</li> <li>• There is an introduction but it does not have a central statement to position the work with reference to the key issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides fragmented points to the key questions.</li> <li>• Introduction does not provide an overview of the structure of the essay.</li> </ul>	<ul style="list-style-type: none"> <li>• A poor answer to the key questions.</li> <li>• There is no introduction to the structure of the essay and position with reference to the key issues is not stated upfront.</li> </ul>	<ul style="list-style-type: none"> <li>• Not answering the question or a very poor answer not directly addressing the stated question.</li> </ul>
Ability to construct coherent arguments	Arguments are carefully & logically constructed, with strong evidence and data.	Arguments are presented with some solid evidence and information.	Arguments are presented with some evidence and information.	Arguments are made but are weakly supported by evidence.	Arguments are not supported by evidence or by irrelevant evidence.
Use of wider literature	Extensive use of literature that goes well beyond the reference list.	Do not go beyond the provided reference list.	Use some of the provided literature.	Shows little use of literature.	Shows no use of literature.
Understanding of concepts/issues	Shows a clear and thorough understanding of concepts and issues through development of synthesised frameworks and deliberations of clear insights.	A sound understanding of concepts/issues with little evidence of efforts to synthesise beyond lectures and cited literature in class.	Shows understanding of concepts/issues but efforts seem to confine to making reference to lecture notes.	Insufficient, inadequate or superficial understanding of concepts and issues.	Wrong understanding of concepts.
<b>Presentation</b>					
Clarity of presentation	Presentation and paragraphing are done professionally. Figures and	Presentation and paragraphing are done clearly. Figures	The paper is not properly paragraphed and our laid out. Tables	Paragraphing is not properly done. Figures are blurred and	Poor presentation. No proper paragraphing. Tables and figures are done poorly.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F (Fail)</b>
	tables are clearly numbered and presented.	and tables are in order.	and figures not properly numbered.	tables are confusing.	
Citation & referencing	All citation and referencing are done properly and consistently.	<ul style="list-style-type: none"> <li>• Some citations are not done properly.</li> <li>• Some references are missing.</li> </ul>	<ul style="list-style-type: none"> <li>• Citation is NOT done properly.</li> <li>• References are missing or not listed properly.</li> </ul>	<ul style="list-style-type: none"> <li>• Citations are missing (plagiarism, when identified, could cause failure).</li> <li>• References are arranged haphazardly.</li> </ul>	No citation and referencing is not properly done.
<b>English writing</b>					
Spelling	No spelling mistakes.	Few spelling mistakes.	Quite a few spelling mistakes.	Clear evidence of not using spell check.	Many spelling mistakes
Grammar	Few, if any, grammatical mistakes.	Grammatical mistakes can be found, often due to weak English foundation.	Quite a few grammatical mistakes. Writing style difficult to follow.	Full of grammatical mistakes.	Full of grammatical mistakes.
Writing style	Clear and effective writing style that facilitates understanding and communication.	Generally clear and effective writing style that serve to communicate.	Writing style that fails to communicate effectively.	Poor writing style that fails to articulate a particular point of view.	Poor readability.