

Data Sheet of International Graduate's Course CAUP, Tongji

同济大学建筑与城市规划学院研究生国际课程(英语)登记表

Course Code 课程编号		Department 所在系(√)	A	P	L	D	院登记号 CAUP Code	
Instructor(Title) 主讲教师(职称)	Prof. ZHUO Jian	Other Teachers 合作教师	Dr. Pr. ZHOU Jiangping					
	卓健 教授		Dr. Pr. Jean-Francois DOULET					
课程中文名	中国城市交通与规划问题选讲							
Course Name (E)	Urban Mobility and Transport: Emerging Issues and Planning Practices in China							
Form of Teaching 教学形式(√)	Lectures 讲课	Design Studio 设计课	Seminar 研讨课		Internship 实践课		Others 其他	
	√		√					
Total Hours 总学时数	36	Hours per Week 周课时	2		Weeks 教学周数		18	
Semester 春季或秋季学期	Fall 秋季	Tongji Credits 同济学分数	2					

Brief Course Description 课程简述 (中英文)

With a focus on the metropolitan area of Shanghai, this course provides a historical and theoretical overview of these transformations and consequences in Chinese urban areas. It will be developed in three parts. Initially we will survey the recent history and current state of the urban transportation system in China to identify its problems and benefits. Next, we will analyze the interrelationships between the transportation system and urban spatial development patterns under Chinese political/institutional context. Finally, we will explore the relative policies, from general political orientations to detailed proposed solutions, including taxation policies, consumer regulation, traffic management and public investment strategies. Although the course is not primarily practice-oriented, it will address the common planning tools in land use and transportation planning.

课程选取上海为案例，对中国城镇化地区中的机动性发展演变及其带来的后果进行理论上的概述。主要包括三个方面：首先，回顾近代以来城市交通系统的发展和演变，以及对城市发展的作用与影响；其次，考察中国城市背景下城市机动性系统与城市空间发展模式之间的相互关系；最后，分析总体的政策导向和具体的应对措施，包括税收政策、消费调控、交通管理和公共投资策略等。课程虽然不是以规划实践为导向的，但将介绍相关的交通规划和土地利用规划工具。

Brief Schedule and Topics 课程进度简表（中英文）

Module 1: Introduction & outlook

Week 1 Introduction and overview

绪论与课程介绍

Week 2-3 The urban development of Shanghai, a brief review from XX century to nowadays

廿世纪以来上海城市建设与交通发展回顾

Week 4 [Invited speaker] Dr. Jean-François Doulet : the innovation of urban mobility

[讲座] 法国巴黎规划学院杜雷博士：创新的城市机动性（暂定）

Week 5 Visit & Debate 1: The concept of urban mobility

参观讨论课 1：城市机动性概念和规划策略

Module 2: Modes of Urban Transportation

Week 6 Modes of transportation 1: public transit

城市交通的系统 1：公共交通

Week 7 Modes of transportation 2: cycling and walking

城市交通系统 2：非机动车交通

Week 8 Modes of transportation 3: automobile

城市交通系统 3：小汽车交通管制

Week 9 [Visit & Debate 2]: Multi-mobility and inter-mobility in urban areas

参观讨论课 2：多方式的城市交通、交通换乘与整合

Week 10 [Invited speaker] Prof. PAN Haixiao: To Low Carbon City, the strategies of Chinese cities

[讲座] 潘海啸教授：中国城市的低碳交通战略（暂定）

Module 3: Urban transportation & Land-use

Week 11 Influences of land use on travel: density, jobs-housing balance and spatial sprawl

土地使用对交通出行的影响：职住平衡和城市扩张

Week 12 [Invited speaker] Prof. ZHOU Jiangping: The Job-Housing Balance in Chinese cities

[讲座] 周江评博士：中国城市的职住平衡（暂定）

Week 13 Transportation and built environment: streets, mixed uses and urban design

交通和建成环境：街道和城市设计

Week 14 [Visit & Debate 3]: How the planner could act on urban transportation though the land-use?

参观讨论课 3：空间规划如何干预城市交通？

Module 4: Urban transportation & Public policies

Week 15 Policies: The Public Transit Priority (PTP) strategy

公交优先发展战略

Week 16 [Visit & Debate 4]: Should the prices of public transit be low enough?

参观讨论课 4: 城市公交和低票价政策

Week 17 Urban mobility and social equity

城市机动性和社会公正

Week 18 Conclusion and final presentations

复习与总结

Course Syllabus 课程大纲 (中英文)

Course Objective and Requirement 教学目标与要求

The evolution of contemporary society is characterized by two major trends, the lasting urbanization and the growth of urban mobility. The interrelationships between these transformations have been made known by many studies: The improvement of transportation has effectively contributed to the concentration of peoples, goods and information in the space; in return, the ongoing urbanization in form of metropolization has induced more and more demands of mobility.

In China, the current transformations in the urban areas are even more brutal. The rapid spatial expansion is coming with the construction of transportation infrastructures and the introduction of new vehicles.

When the urban mobility has been clearly considered as an essential factor for the local dynamics and attractability, the spatial, environmental and social consequences it has generated should not be ignored.

With a focus on the metropolitan area of Shanghai, this course provides a historical and theoretical overview of these transformations and consequences in Chinese urban areas. It will be developed in three parts. Initially we will survey the recent history and current state of the urban transportation system in China to identify its problems and benefits. Next, we will analyze the interrelationships between the transportation system and urban spatial development patterns under Chinese political/institutional context. Finally, we will explore the relative policies, from general political orientations to detailed proposed solutions, including taxation policies, consumer regulation, traffic management and public investment strategies. Although the course is not primarily practice-oriented, it will address the common planning tools in land use and transportation planning.

Students are required to:

(1) understand the general principles and theories about the planning, design, construction, organization and management of different systems of urban transportations, such as non-motorized mode, automobile and public transit;

- (2) grasp the basic procedure and method of comprehensive urban transportation planning;
- (3) get a preliminary idea of the methodology of research concerning urban transportation issues, especially how to analyze the relevant problems from the point of view of urban planner.

本课程为建筑与城市规划学院平台的全英文专业基础课，可供我校建筑学、城乡规划、景观建筑学等专业的硕士研究生选修。通过本课程使学生掌握城市交通学的基本概念和理论，认识城市交通系统的组成及其相互关系，在此基础上进一步了解城市交通与用地规划之间的相互作用。结合我国大中城市当前城市交通发展的实际状况和存在问题，学习国内外的最新相关科研动态和实践经验。本课程的基本要求如下：

- (1) 全面了解非机动车交通、小汽车交通和公共交通在系统规划设计、组织管理以及公共政策等方面的基本原理和理论知识；
- (2) 掌握城市交通规划所涉及的主要内容，规划原理以及工作方法；
- (3) 学习从城市空间规划和经营管理的角度，全面、综合地认识城市交通问题，并掌握相关的研究方法。

Assignments & Grading 作业和评分

The course will be run partly in lecture and partly in seminar format. During both parts, students are expected to participate actively.

During the course of the semester, students will give about ten-minute presentations to the class summarizing that week's readings. The speakers should hand in a two-page reading review after the presentation.

Students must complete one five-page case study or analytical essay. The final product will be due at the beginning of the last class.

Reading reviews will account for 20% of the grade; in-class participation and presentations, 30%; and the paper 50%.

- 学生应保证出勤并积极参与课堂讨论。平时表现占总成绩 20%；
- 学生应完成 1 次课堂汇报并提交汇报 PPT，这一工作占总成绩 30%；
- 课程结束后，学生应提交一篇与城市交通相关的课程论文，论文质量占总成绩 50%。

Main Reference Books 主要参考书目

A01-05/ general 基础理论

- [01] Ralph Gakenheimer (1999), Urban mobility in the developing world, in *Transportation Research Part A*, 33(1999), 671-689.
- [02] Qing Shen (1997), Urban transportation in Shanghai, China : problems and planning implications, in *International Journal of Urban and Regional Research*, N° 21, 589-606.
- [03] Manuel Castells (2010), Globalisation, Networking, Urbanisation: Reflections on the Spatial Dynamics of the Information Age, in *Urban Studies*, 47(13) 2737-2745.
- [04] Robert Cervero, Aaron Golub (2007), Informal transport: A global perspective, in *Transport Policy*, 14 (2007), 445-457.

[05] Zhong-ren PENG, Yi ZHU, Shunfeng SONG (2008), Mobility of the Chinese Urban Poor: A Case Study of Hefei City. In *The Chinese Economy*, vol. 41, no. 1, pp. 36-57.

B01-06/ Mode of transportation 交通模式

[01] John Zacharias (2002), Bicycle in Shanghai: movement patterns, cyclist attitudes and the impact of traffic separation, in *Transport Reviews*, 2002, VOL. 22, NO. 3, 309-322.

[02] Christopher Cherry, Robert Cervero (2007), Use characteristics and mode choice behavior of electric bike users in China, in *Transport Policy*, 14(2007), 247-257.

[03] Christopher R. Cherry, Jonathan X. Weinert, Yang Xinmiao (2009), Comparative environmental impacts of electric bikes in China, in *Transportation Research Part D*, 14(2009), 281-290.

[04] Ji Han, Yoshitsugu Hayashi (2008), Assessment of private car stock and its environmental impacts in China from 2000 to 2020, in *Transportation Research Part D* 13(2008), 471-478.

[05] Jiming Hao, Jingnan Hu, Lixin Fu (2006), Controlling vehicular emissions in Beijing during the last decade, in *Transportation Research Part A*, 40(2006), 639-651.

[06] World Bank (2010), *Urban Rail Development in China: Issues and Options*. 111p.

C01-04/ Planning & Transportation 交通与城市规划

[01] Robert Cervero, Jennifer Day (2008), Suburbanization and transit-oriented development in China, *Transport Policy* (15):315-323.

[02] Robert Cervero, Jin Murakami (2008), Rail and Property Development in Hong Kong: Experiences, Impacts, and Extensions, *Urban Studies*, vol. 46, 10: pp. 2019-2043.

[03] Robert Cervero (2002), Built environments and mode choice: toward a normative framework, *Transportation Research Part D* (7): 265-284.

[04] Pan, H. X., Q. Shen, and M. Zhang (2009). Influence of Urban Form on Travel Behaviour in Four Neighbourhoods of Shanghai. *Urban Studies*, Vol. 46, No. 2, pp. 275-294.

D01-05/ Transportation policies 交通政策

[01] Robert Cervero, and Kara M. Kockelman (1997), Travel demand and the 3 Ds: Density, diversity, and design. *Transportation Research D* 2 (3):199-219.

[02] Piet Rietveld, Vanessa Daniel (2004), Determinants of bicycle use: do municipal policies matter?. *Transportation Research Part A* (38): 531-550.

[03] Shoup, Donald C. (1999). The trouble with minimum parking requirements. *Transportation Research A* 33 (7-8):549-574.

[04] David A. Hensher, Sean M. Puckett (2007), Congestion and variable user charging as an effective travel demand management instrument, *Transportation Research Part A* (41), 615-626.

[05] Hans De Bruijn, Wijnand Veeneman (2009), Decision-making for light rail, in *Transportation Research Part A*, 43(2009), 349-359.