

Syllabus

Sustainable Mobility in Rapidly Urbanizing World

Course Name (Chinese)	快速城市化进程中的城市可持续交通		
Course Name (English)	Sustainable Mobility in Rapidly Urbanizing World		
Course Number	020583	Language	English
Credits	1	In-class Hours	16
Course Type	Elective Courses	Examination/Evaluation	Evaluation
Prerequisite Courses	N/A		
Availability of English courses	Yes		
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1. Course Orientation and Requirements

1. Course Orientation

This is an undergraduate course focusing on sustainable development and planning, applicable to various disciplines such as urban planning, transportation, public policy and human geography. In this course, we examine how transportation systems can be made more sustainable and efficient in rapid urbanizing world. We discuss a wide range of transport challenges and various strategies and policy options to achieve sustainability. We use case studies from both China and abroad (Singapore and Curitiba) with diverse characteristics and development stage to illustrate the different policy pathways to achieve sustainable transport. The goal is to strengthen the students' understanding of sustainability and transport policies and planning, cultivate their systematic and comprehensive view and problem solving capability in urban transportation.

2. Course Objectives

This course is an English course for undergraduate students. We examine the various challenges in achieving sustainable urban transport, compare alternative policy options, and analyze case studies in different development contexts. Through course study, students will learn:

- 1) to gain a better understanding of the related concepts and key issues in the sustainable development of cities;
- 2) to understand the origin of major urban transport problems and trends in city development;

3) to understand the different policy options and paths to achieve sustainable urban transportation;

4) to gain the basic capability for policy evaluations in urban transportation.

3. Indicators of Graduation Requirements Supported by the Course

Serial No.	Indicators of Graduation Requirements	Contents
1	Indicator 2-1	Establish the idea of lifelong learning and have strong lifelong learning ability.
2	Indicator 2-2	Acquire basic general-purpose scientific, engineering, and technical knowledge.
3	Indicator 2-3	Can think independently, with strong integrative, systematic, logical, and critical thinking.
4	Indicator 2-4	Have a strong ability to relate theory to practice, good at identifying problems, analyzing them, and solving them.
5	Indicator 3-1	Develop professionalism and research capability in planning
6	Indicator 3-2	Acquire the necessary basic knowledge and skills in disciplines related to urban and rural planning.
7	Indicator 3-3	Understand the basic theories of urban and rural development and planning, learn the investigation, analytical, design and presentation methods and skills in urban and rural planning.
8	Indicator 3-5	Understand the new directions and progress of urban and rural research and planning in China and abroad.

4. Correlations between Course Objectives and Graduation Requirements

Course Objectives \ Graduation Requirements	Course objective 1	Course objective 2	Course objective 3	Course objective 4
Indicator 2-1	●	●	●	●
Indicator 2-2	●	●	●	●
Indicator 2-3	●	●	●	●
Indicator 2-4	●	●	●	●
Indicator 3-1	●	●	●	●
Indicator 3-2	●	●	●	●
Indicator 3-3	●	●	●	
Indicator 3-5	●		●	

2. Course Content, Teaching Requirements, Credit Hour Allocation, and Teaching Methods

No.	Knowledge Modules	No.	Knowledge/ Competency Points	Requirements	Supported course objectives	Teaching Methods	In-class Hrs	Extra curricular Hrs
1	Sustainable transportation: Basic concepts and theories	1	Course introduction and fundamentals in urban transportation	Understand and capable of analysis	Courses objective 1-3	Lecture	6	6
		2	City development and sustainable transportation	Understand and capable of analysis		Lecture		
		3	Transportation strategies, options and finance	Understand and capable of analysis		Lecture		
2	Sustainable transportation: Case studies and policy analysis	4	Case study: Singapore's approach to achieve sustainable transport I	Understand and capable of analysis	Courses objective 3 & 4	Lecture	8	8
		5	Case study: Singapore's approach to achieve sustainable transport II	Understand and capable of analysis		Lecture		
		6	Case study: Focusing on China I	Understand and capable of analysis		Lecture		
		7	Case study: Focusing on China II	Understand and capable of analysis		Lecture		
3	Course summary and group presentation	8	Course summary and group presentation	Group report and presentation in English	Courses objective 1 - 4	Group report & presentation	2	2

3. The connotation of "moral education" in the curriculum

The transportation system is one of the main driving forces of urban and economic growth. Solving the transportation problem in the process of rapid urbanization and achieving sustainable transportation influence the public welfare of the whole society. Cultivating a good understanding of sustainable transportation will help urban planning students adhere to professional ethics in their future careers, pursue social justice and fairness, consciously protect the public interest, and contribute to the sustainable development of the country.

4. Assessment, grading methods, and retake requirements

Assessment method	Percentage	Supported course objectives	Notes
Course participation	10%	Course objective 1	Attendance, participation in the discussion in class.
		Course objective 2	
		Course objective 3	
		Course objective 4	
Individual assignment	40%	Course objective 1	Individual assignment: Reading, analyzing and summarizing related literature.
		Course objective 2	
		Course objective 3	
		Course objective 4	
Group project	50%	Course objective 1	Group assignments: group project reports and presentations
		Course objective 2	
		Course objective 3	
		Course objective 4	

5. Evaluation criteria

1. Evaluation criteria for course participation

Supported course objectives	Evaluation details and score				
	100-90	89-80	79-70	69-60	59-0

Supported course objectives	Evaluation details and score				
	100-90	89-80	79-70	69-60	59-0
Objectives 1-4	Full attendance; active participation in Q&A.	1 absence; less active participation in Q&A.	2 absences; some participation in Q&A.	3 absences; few participation in Q&A.	4 or more absences; no participation in Q&A.

2. Evaluation criteria for individual assignment

Supported course objectives	Evaluation details and score				
	100-90	89-80	79-70	69-60	59-0
Objectives 2-4	Submitted on time; concept explained clearly; analysis of problems and summary of literature in a clear and organized manner; writing is clear and well formatted.	Submitted on time; In general, concept explained clearly, analysis of problems and summary of literature in a clear and organized manner, and the writing is clear and well formatted.	Submitted on time; reasonable concept explanation, analysis of problems, summary of literature, and writing.	Short late submission; concept explanation, analysis of problems, summary of literature with some problems; writing is fair.	Severe overtime late or not submitted; unclear concept explanation, analysis of the problem, and summary of literature; in appropriate writing.

3. Evaluation criteria for group project

Supported course objectives	Evaluation details and score				
	100-90	89-80	79-70	69-60	59-0
Objectives 1-4	Report submitted on time; profound and comprehensive review of literature, concepts clearly explained; analyses of	Report submitted on time; In general, literature clearly reviewed, concepts clearly explained, analyses of	Report submitted on time; research questions are basically clear; can review some relevant literature; analysis are basically	Short late submission of report; research question is fair; can list relevant literature; analysis is fair; writing is fair; fair	Severe overdue or non-submission of report; unclear research questions; lack of literature review; unreasonable analysis; inappropriate

Supported course objectives	Evaluation details and score				
	100-90	89-80	79-70	69-60	59-0
	problems clearly organized; appropriate writing; excellent performance in oral presentation.	problems clearly organized, and appropriate writing; very good performance in oral presentation.	reasonable; writing is clear; good performance in oral presentation.	performance in oral presentation	writing; poor performance in oral presentation.

6. Textbooks and main reference books

Name of teaching book	Authors	Press	Edition	ISBN	Textbook situation	Textbook/Main reference books
《城市交通学导论》	汪光焘	同济大学出版社	2018年第1版	978-7-5608-7494-4	“十三五”国家重点图书出版规划项目	Main reference book
The Geography of Transport Systems	Jean-Paul Rodrigue	Routledge	2020 fifth edition	978-0-367-36463-2		Main reference book