

CE I2600 URBAN TRANSPORTATION PLANNING

The City College
of New York

Department of Civil Engineering

Spring 2021

Mondays. 5:00pm – 7:30pm

City College Campus



What this course is all about?

The transportation systems around which the modern world has been built are on the verge of a significant transformation. Major changes such as revolutionary technologies (drones and automated vehicles), rapid innovations in urban transportation services, unreliable funding for infrastructure and operations, and possible changes in national policies affecting trade and environment could have significant implications for the delivery of goods and services, personal travel, and the economy. By providing an overview of contemporary urban transportation planning and examining the policy, politics, planning, and engineering of transportation systems in urban areas, this course will prepare students to:

- Acquire a good overview of the history and process of transportation planning in the U.S.
- Understand the basic principles and methods used by engineers and planners in the planning of transportation systems.
- Understand the overall process behind travel models and forecasts.
- Use of computer solutions to transportation planning and design problems.
- Use of analytical tools for transportation planning, traffic engineering, and policy analysis.
- Understand the contribution of transportation to air pollution, social costs, and climate change; land use and transportation interactions, and more.

Specific areas of focus in this course will include the policy context for transportation planning in the U.S., methods of data collection and performance measurement, travel demand modeling, land-use transportation interactions, social and environmental impacts of transportation, financing of transportation systems, and emerging information technologies for transportation planning. Transportation sustainability is a central theme throughout the course, as well as consideration of if and how it is possible to resolve the tension between the environment, economy, and equity.

Who should sign up?

This course is designed for graduate students in transportation engineering, sustainability in the urban environment, urban planning, and other fields with an interest in transportation systems and their impacts on society.

What will I do?

Students will participate in interactive lectures and discussions aimed to stimulate independent thinking, and encourage students to understand and challenge the “conventional wisdom” of transportation planning. Students will also develop and present a case study project.



About the instructor

Dr. Camille Kanga is an Associate Professor in the Department of Civil Engineering. His research interests include: intelligent transportation system; modeling and traffic simulation; analysis of very large transportation networks; use of real-time information for travel; transportation modeling using mobile sensors; transportation planning and policy, transportation operations; sustainability and environment; and transportation safety. Dr. Kanga is leading the University Transportation Research Center (UTRC) in innovative research, education, and technology transfer programs; addressing issues of urban mobility and sustainability; as well as concepts and technologies related to Big Data applications to transportation and traffic engineering.