CIVIL-351  
Transportation systems engineering I  
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Summary
- Introduce the major elements of transportation systems and create awareness of the broader context  
- Develop basic skills in applying the fundamentals of the transportation field  
- Understand the key concepts and physics of the transport phenomena  
- Connect with real transportation problems

Content
Transportation Systems and Mobility:
Mobility - Activities - Land Use, Classification-Hierarchy, Multimodality-Urban Planning

Demand:
Demand analysis, Travel Forecasting (4-step models)

Modeling and Operations:
Basic assessment tools, Traffic flow modeling, Control and capacity of transport systems

Design of multimodal systems:
Urban Policy, Case Studies, Intro to bus operations

Teaching methods
Ex-cathedra with assisted exercises, course group projects

Assessment methods
Midterm 30%
Final Exam 40%
Laboratories 30%

Resources
Bibliography
Lecture notes, book chapters and handouts will be distributed throughout the semester, or posted on web.

Prerequisite for
Master classes in Transportation

"Le contenu de cette fiche de cours est susceptible d’être modifié en raison du covid-19"