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COURSE: URBAN AND METROPOLITAN TRANSPORT	
ACADEMIC YEAR: 2017 - 2018	
TYPE OF EDUCATIONAL ACTIVITY: Characterizing	
TEACHER: Prof. Umberto Petruccelli	
e-mail: <a href="mailto:umberto.petruccelli@unibas.it">umberto.petruccelli@unibas.it</a>	website: <a href="https://elearning.unibas.it/">https://elearning.unibas.it/</a>
phone: 0971-205173	mobile (optional):
Language: Italian	

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ECTS: 6 of which: 5 ECTS for lessons 1 ECTS for tutorials/ practice	n. of hours: 54 of which: 45 hours for lessons 9 hours for tutorials/ practice	Campus: Potenza School of Engineering Program: Master's degree in Civil Engineering	Semester: 1 <sup>th</sup>
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#### EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

This teaching is the only one of the Transport sector within the Master's Degree and it deals with the urban road system, that is the set of the demand and supply components of the different transport modes, including non-motorized ones, which use the urban road network.

The goal of the Teaching is to transfer the knowledge about the operation of the urban road system, as well as the tools to identify critical issues, and design the improvement actions.

The main knowledge provided consists of methods and tools to analyze and evaluate the system operation for the different transport modes and to plan the necessary actions.

The skills transferred, also through the activities of exercises and lab, is the ability to operate independently on urban mobility using rational methods and tools, as much as possible quantitative, and taking into account the overall effects. Particularly the transferred skills led to know how to analyze the urban mobility system, detect critical issues, identify the intervention targets, design, in terms of operation, corrective action and assess the effectiveness of the latter against the targets.

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PRE-REQUIREMENTS: None

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#### SYLLABUS

Objectives and instruments of urban transport planning  
Technical and management measures, control and regulation of traffic  
Road safety, environmental protection and traffic calming  
Control and capacity of the road intersections  
Parking  
Components of non-motorized traffic public transport  
Freight  
Capacity of the urban road network  
Fixed installations for public transport  
New building residential areas  
Distribution of goods and transport in urban and metropolitan areas  
Issues of urban transit services and cost assessment.

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#### TEACHING METHODS

Lectures on all subjects of the Teaching for a total of about 45 hours;  
an exercise which is the analysis of transport system criticalities of a sample city and the functional design of remedial measures to solve one or more of the found problems. The exercise is generally made in small groups and requires a commitment in the classroom (with the assistance of the teacher) of about 9 hours, in addition to the commitment of the students at home

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#### EVALUATION METHODS

Oral examination to ensure the knowledge and skills of the candidate and discussion of the results of the exercise carried out during the course.

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#### TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

##### Reference text:

- Cappelli A., Luongo A.S., Mallano D., Petruccelli U. (2000), Strumenti e metodologie per la gestione del sistema stradale urbano, Franco Angeli, Milano
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- Fancello G. (2005), Distribuzione commerciale e trasporti in Italia (Metodo e manuale per le previsioni di mobilità), Franco Angeli, Milano
  - On-line integrative teaching notes (on the website <https://elearning.unibas.it/>)

**Deepening text:**

- Maternini G. (a cura di) (2013), Trasporti e città: mobilità e pianificazione urbana, EGAF, Forlì
  - Maternini G., Foini S. (a cura di), (2010), Tecniche di moderazione del traffico: Linee guida per l'applicazione in Italia, Egaf, Forlì
  - Montella B. (1996), Pianificazione e controllo del traffico urbano: modelli e metodi, CUEN, Napoli
  - Cascetta E., Montella B. (2003), Metodologie per la redazione e la gestione dei piani urbani del traffico e della mobilità, Franco Angeli, Milano
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**INTERACTION WITH STUDENTS**

The Professor receives students in his studio, at the 4th floor of the School of Engineering, on Wednesday, by appointment to be taken by email.

The Professor is always available through its e-mail and soon after each lesson.

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**EXAMINATION SESSIONS (FORECAST)<sup>1</sup>**

On the 1st and 3rd Wednesday of each month, except in August

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**SEMINARS BY EXTERNAL EXPERTS**    YES     NO

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**FURTHER INFORMATION**

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<sup>1</sup> Subject to possible changes: check the web site of the Teacher or the Department/School for updates.