Introduction

The Master Degree in Transport Systems Engineering aims at providing students with high level qualifications, to allow them performing and managing a wide variety of activities connected with planning, programming, operating, monitoring transport systems and their components.

Students will acquire knowledge and methodologies to:

- **optimize** the use of infrastructure and services for transport by road, rail, air and sea;
- **design** transport systems and their components: infrastructure, services, vehicles, terminals and plants;
- **model** vehicular flows on multi-modal networks for the mobility of people and goods.

The professional skills of a Transport Systems Engineer include:

- **methods** to design transport systems: formulation of dimensional and performance specifications for system components;

- **models** for mobility of people and goods, for transport supply on multi-modal networks, for demand/supply interaction and equilibrium calculation for transport system operations and management;

- **design and implementation** of transport systems (technical and economic aspects), transport and mobility plans on different levels;

- **monitoring and ex-ante/ex-post assessment** of mobility solutions from the technical, economic and environmental point of view.

Placement

The placement is based on regular contacts with industries, operators, consultants, public agencies and administrations, research centers and any other subjects potentially interested to employ Transport Systems Engineers, host stages and finance scholarships. Among them:

Autorità di Regolazione dei Trasporti
transport regulation authority

BOMBARDIER
one of the leading companies in the transport industry

FERROVIE DELLO STATO ITALIANE
the main Italian railway company

FlixBus
mobility provider for travelling across Europe

IDAL Group
developing maritime constructions

Ikos
consultancy in the railway sector

MOVESION
mobility management

PTV SISTeMA
spin-off of Sapienza, modelling and technological development of ITS

TEAM Engineering
transport design and consultancy

Master's Programme in Transport Systems Engineering

SAPIENZA
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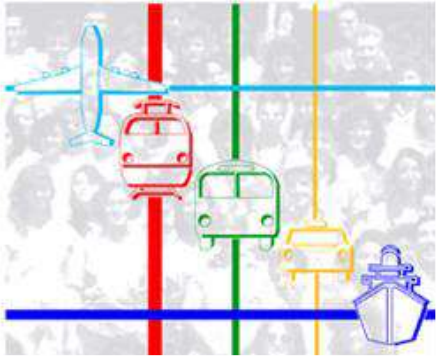

https://web.uniroma1.it/cdaingtrasporti/

Study Program

The program is organized into modules. It is composed by 120 ECTS as follows:

- 4 modules concerning transport specific compulsory disciplines (48 ECTS);
- 2 modules concerning integrative compulsory disciplines (12 ECTS);
- 4 modules concerning transport specific disciplines chosen by the student in optional group (24 ECTS);
- 2 modules freely chosen by the student in coherence with educational purposes of the Master Degree (12 ECTS);
- Other education activities proposed by the student (3 ECTS);
- Thesis work (21 ECTS).

Entry Requirements

- An engineering bachelor's degree or equivalent to engineering degree;
- Good mathematics and physics skills;
- A minimum B1 Level of English Language;
- No Italian language requirements;
- No admission test.

In addition to the general requirements listed above, the type of degree, Grade Point Average, English Language skills will be considered during the pre-selection process.

TIMETABLE 2018-2019

November 2017: start of the pre-selection application process

February 2018: start of the pre-enrollment process

July 2018: start of the enrollment process

September 2018: start of the academic year

SEMESTER 1

Module	ECTS
Traffic Engineering and ITS (1/2)	6
Transport Networks and Vehicles	12
(*) Geomatics and ITS	6
(*) Programming for Transport Systems	6

SEMESTER 2

Module	ECTS
Traffic Engineering and ITS (2/2)	6
Transport Modelling and Planning	12
(*) Air Transport	6
(*) Maritime Transport	6
(*) Road Safety	6
(*) Transport Infrastructures	6

SEMESTER 3

Module	ECTS
Railway Engineering	12
Urban and Regional Policy	6
(*) Freight Transport and Logistics	6

SEMESTER 4

Module	ECTS
Safety and Risk Analysis	6
(*) Maritime Constructions	6
(*) Transport Policies	6

INTEGRATIVE ACTIVITIES

Module	ECTS
2 freely chosen modules, suggested among (*)	12
Other education activities proposed by the student	3
Master's thesis	21

CONTACTS

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