



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Ingegneria		
ACADEMIC YEAR	2020/2021		
BACHELOR'S DEGREE (BSC)	CIVIL ENGINEERING		
INTEGRATED COURSE	TRANSPORTATION TECHNIQUE AND ECONOMICS AND VALUATION - INTEGRATED COURSE		
CODE	17613		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	ICAR/05, ICAR/22		
HEAD PROFESSOR(S)	SALVO GIUSEPPE	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	SALVO GIUSEPPE	Professore Associato	Univ. di PALERMO
	NAPOLI GRAZIA	Professore Ordinario	Univ. di PALERMO
CREDITS	12		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	3		
TERM (SEMESTER)	Annual		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<p>NAPOLI GRAZIA Tuesday 10:30 12:30 stanza 212, 2° piano del corpo a "C" edificio 14.</p> <p>SALVO GIUSEPPE Monday 10:00 12:00 Dipartimento di Ingegneria (area Trasporti piano 2°) Wednesday 10:00 12:00 Dipartimento di Ingegneria (area Trasporti piano 2°) Thursday 12:00 14:00 Dipartimento di Ingegneria (area Trasporti piano 2°)</p>		

DOCENTE: Prof. GIUSEPPE SALVO

PREREQUISITES	Knowledge of Physics
LEARNING OUTCOMES	<p>Knowledge and understanding The student at the end of the course will have knowledge about mobility of people and goods, and capacity to perform estimation case studies, which will enable him to evaluate investment projects in the transport sector</p> <p>Applying knowledge and understanding ability to understand the issues of people and freight mobility in terms of technology, functional, territorial, environmental and safety as well as in the estimation procedures and to assess their respective effectiveness</p> <p>Making judgments To be able to identify the theoretical and practical elements to evaluate and compare the results of studies in the field of people and freight mobility. In the course theories and arguments in respect of professional ethics and principles of national and international codes of conduct are discussed</p> <p>Communication skills: The student will acquire skill about evaluation reports and ability to expose issues concerning the different transport systems and to offer solutions.</p> <p>Learning ability Update capability by consultation of its scientific publications. Ability to attend, using the knowledge acquired in the course, teachings concerning transportation engineering</p>
ASSESSMENT METHODS	Written and oral test regarding the topics addressed during the course, the presentation of a property valuation report and discussion of exercise. Oral examination of TRANSPORT TECHNIQUES AND ECONOMICS will deal all the topics covered during the course
TEACHING METHODS	Teaching takes place in the first and second half of the 3rd year and consists of lectures and of numerical exercises. Classroom exercises are performed to simulate the final examination.

**MODULE
TRANSPORTATION TECHNIQUE AND ECONOMICS**

Prof. GIUSEPPE SALVO

SUGGESTED BIBLIOGRAPHY

CANTARELLA, G.E. (2001), *Introduzione alla Tecnica dei Trasporti e del Traffico con Elementi di Economia dei Trasporti*, UTET, Torino,

CASCETTA, E. (1998), *Teoria e Metodi dell'Ingegneria dei Sistemi di Trasporto*, UTET, Torino,

RICCI, S., (2011), *Tecnica ed economia dei trasporti*, Hoepli, , Milano ISBN: 9788820345945

AMBIT	50278-Ingegneria ambientale e del territorio
INDIVIDUAL STUDY (Hrs)	96
COURSE ACTIVITY (Hrs)	54

EDUCATIONAL OBJECTIVES OF THE MODULE

This course is intended to provide an overview of traffic engineering fundamentals. course on this topic can address a wide range of areas upon which additional continuing education can be built.

SYLLABUS

Hrs	Frontal teaching
1	introduction to traffic studies and summary of available resources
2	Generality about means of transport: the social role, the link between transportation and territorial structure.
2	Forces on the vehicle, equilibrium of forces on wheels
2	Power and traction diagrams, performance curves and manual integration of the motion equation
2	Introduction to vehicle dynamics
2	Active and Passive Driving Safety
4	Logistics, freight transportation and management
6	fundamentals of travel demand and network modeling

Hrs	Practice
7	Resistances to motion
6	drag factor, Locomotion mechanic and general equation for traction
2	Braking and stop distances on roads and railways
6	Traffic flow theory
4	Traffic Analysis: experimental techniques to characterize and analyze arterial street and freeway traffic operations
6	Logistics, freight transportation and management
3	Power and traction diagrams, performance curves and manual integration of the motion equation
2	Introduction to vehicle dynamics

**MODULE
ECONOMICS AND LAND VALUATION**

Prof.ssa GRAZIA NAPOLI

SUGGESTED BIBLIOGRAPHY

CANTARELLA, G.E. (2001), *Introduzione alla Tecnica dei Trasporti e del Traffico con Elementi di Economia dei Trasporti*, UTET, Torino,

CASCETTA, E. (1998), *Teoria e Metodi dell'Ingegneria dei Sistemi di Trasporto*, UTET, Torino,

RICCI, S., (2011), *Tecnica ed economia dei trasporti*, Hoepli, , Milano ISBN: 9788820345945

AMBIT	10653-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	96
COURSE ACTIVITY (Hrs)	54

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