



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Ingegneria		
ACADEMIC YEAR	2021/2022		
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	Basic knowledge of mathematics, Physics and building technolog
LEARNING OUTCOMES	<p>Knowledge and understanding The student at the end of the course will have knowledge about mobility of people and goods, and ability to structure and solve appraisal 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 aboaut 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, ISBN: 8802055599

CASCETTA, E. (1998), Teoria e Metodi dell'Ingegneria dei Sistemi di Trasporto, UTET, Torino, (è consigliata qualsiasi edizione del testo)

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

AMBIT	50278-Ingegneria ambientale e del territorio
INDIVIDUAL STUDY (Hrs)	98
COURSE ACTIVITY (Hrs)	52

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
1	Generality about means of transport: the social role, the link between transportation and territorial structure.
1	Forces on the vehicle, equilibrium of forces on wheels
2	Resistances to motion
1	drag factor, Locomotion mechanic and general equation for traction
4	Power and traction diagrams, performance curves and manual integration of the motion equation
6	Introduction to vehicle dynamics
2	Traffic flow theory
6	fundamentals of travel demand and network modeling
4	Logistics, freight transportation and management
Hrs	Practice
2	Braking and stop distances on roads and railways
3	Traffic flow theory
5	Traffic Analysis: experimental techniques to characterize and analyze arterial street and freeway traffic operations
6	Logistics, freight transportation and management
3	Resistances to motion
2	drag factor, Locomotion mechanic and general equation for traction
3	Power and traction diagrams, performance curves and manual integration of the motion equation

**MODULE
ECONOMICS AND LAND VALUATION**

Prof.ssa GRAZIA NAPOLI

SUGGESTED BIBLIOGRAPHY

Roscelli R. (2014), Manuale di estimo: valutazioni economiche ed esercizio della professione, UTET, Torino, ISBN 978-8860084293

Napoli G. (2007), Teoria e pratica dei capitali urbani. Forma temporale e monetaria della città, Franco Angeli, Milano, ISBN: 978-8846489661.

Simonotti M. (2006), Metodi di stima immobiliare, Dario Flaccovio Editore, Palermo. EAN: 9788877586865

AMBIT	10653-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	98
COURSE ACTIVITY (Hrs)	52

EDUCATIONAL OBJECTIVES OF THE MODULE

The course of Economics and Appraisal aims to provide students with the necessary knowledge to acquire an economic-estimative approach to be applied to the design of building works. To this end, both theoretical and operational tools will be provided to appraise real estate assets and to assess the economic feasibility of public and private projects and investments, supporting the decision-making process in an interactive and iterative way.

SYLLABUS

Hrs	Frontal teaching
2	Principles of microeconomics and macroeconomics
2	Financial mathematics
2	Real estate market analysis
9	Real estate appraisal methods
4	Construction cost estimation
9	Financial and economic assessments
Hrs	Practice
4	Real estate survey
4	Real estate appraisal - case studies
4	Construction cost estimation - case studies
6	Cash Flow analysis - case studies
6	Cost-benefit analysis -case studies