



## **COURSE DESCRIPTION FREIGHT AND LOGISTIC**

**SSD: TRASPORTI (ICAR/05)**

DEGREE PROGRAMME: TRANSPORTATION ENGINEERING AND MOBILITY (P55)  
ACADEMIC YEAR 2022/2023

### **COURSE DESCRIPTION**

TEACHER: MARZANO VITTORIO  
PHONE:  
EMAIL: vittorio.marzano@unina.it

### **GENERAL INFORMATION ABOUT THE COURSE**

INTEGRATED COURSE: NOT APPLICABLE  
MODULE: NOT APPLICABLE  
CHANNEL: FG A-Z  
YEAR OF THE DEGREE PROGRAMME: II  
PERIOD IN WHICH THE COURSE IS DELIVERED: SEMESTER I  
CFU: 9

#### **REQUIRED PRELIMINARY COURSES**

No preparatory teaching

#### **PREREQUISITES**

No prerequisites are requested

#### **LEARNING GOALS**

The course aims to provide student with basic knowledge on freight transport system (both for supply and demand side), in order to analyse the interplay between logistics and freight transports and to plan and assess freight transport systems.

#### **EXPECTED LEARNING OUTCOMES (DUBLIN DESCRIPTORS)**

##### **Knowledge and understanding**

The course is intended to provide students with methodological tools needed to design and assess freight transport systems (e.g. mathematical models and quantitative methods) and valuable insights on supply chain management.

### **Applying knowledge and understanding**

Students are expected to have acquired skills in planning and governance of freight transports systems at different levels (urban, regional, national, international). Also, the students should be able to use the acquired tools to develop critical and autonomous analysis on freight transport providers and logistics operators.

### **COURSE CONTENT/SYLLABUS**

The course is composed by four main parts:

- Basic knowledge on logistics and supply chain management, with an in-depth analysis of the market of freight transport services.
- Detailed illustration of the supply transport model taking into account different transport mode (e.g. road, rail, maritime, air) with a focus on intermodal transports and freight terminals.
- Detailed analysis of freight transport demand modelling in terms of market trends and data sources at different levels (i.e. national and international).
- Description of main quantitative methods to plan and design freight transport systems, from different perspectives (e.g. private operators and public bodies) and by different geographical levels.

### **READINGS/BIBLIOGRAPHY**

Cascetta E. (2006). Modelli per i sistemi di trasporto, teoria e applicazioni. UTET  
Lecture slides available on [www.docenti.unina.it](http://www.docenti.unina.it)

### **TEACHING METHODS OF THE COURSE (OR MODULE)**

Teaching forms mainly consist of lectures, exercises and seminars.

### **EXAMINATION/EVALUATION CRITERIA**

#### **a) Exam type**

- ☐ Written
- ☒ Oral
- ☐ Project discussion
- ☐ Other

#### **In case of a written exam, questions refer to**

- ☐ Multiple choice answers
- ☐ Open answers
- ☐ Numerical exercises

#### **b) Evaluation pattern**