

## Master in Economics for a Sustainable Transport Development

### **Objectives and target participants**

The MaEST is intended to face the topic of a sustainable transport development in the Adriatic-Ionian basin also through the creation of an academic consortium among Universities and Research Institutes of the Adriatic-Ionian Initiative Member States. The problem is tackled mainly in its economic dimension, but taking into consideration also technical and legal features, according to an interdisciplinary approach connecting all the different aspects of sustainable development.

With the “Master’s Programme in Economy for a Sustainable Transport Development”, UniAdrion - Working Group n.4 intend to sensitise public authorities and private operators in the region, making them aware about environmental and economic subjects, so that they will be able to endow the territory with economically and environmentally sustainable transport systems. In particular, national and international economic policies for transport and the environment can promote development joining economic efficiency issues and protective measures for the natural and cultural resources of the region, through the exploitation of modern technologies, especially those involving information science, telecommunication and transport (Intelligent Transport Systems).

Managing, both at local and national level, such important policy measures, requires the Institutions to constantly train people coming from the entrusted technical-administrative cadres in issues of transport planning inland and along the coast, with a simultaneously theoretical and hands-on approach.

In this context, special attention has to be focused on the peculiarity of the Adriatic-Ionian Initiative for what regards the process of the European Integration of some of its Member States and neighbouring countries. Practitioners dealing with transport issues, both in the public and in the private sector, should be aware of European Community policies and programmes, and also European financial support instruments (e.g. TEN Programme, R&D Framework Programme, INTERREG) and fund-raising possibilities in this specific field for the Adriatic-Ionian region.

Target participants of this course are mainly graduate students coming from All Member States who intend to take offices related to planning and management transport systems at various levels within Local and National Institutions (Regions, Provinces, Port Authorities, Public Companies, International entrusted structures, Governmental and non- Governmental agencies, Research Institutes and Universities, and private engineering and consulting consortia).

Moreover, MaEST students would have to be able, at the end of this post-graduate experience, also to tackle some practical project ideas developed within UniAdrion Working Group n.4. Training a ruling class and, generally, competent people, aware of European political and economic scenarios, could determine a dragging solution of “old” unsolved problems, i.e. feasibility of the Adriatic Ionian Corridor, as well as it could answer future needs, i.e. updating of the scheduled land planning where there are risks of seriously compromising the environment and the receptive capacity of the existing infrastructures, studies of new road/rail links in order to avoid, in a close future, the congestion of freight and passenger traffic in the existing network, especially coming from the South-East region and Turkey, further to the EU enlargement process.

### **Master’s Programme: Contents**

The MAEST programme includes all major topics concerning the sustainable development of transport systems. However a special focus on maritime transport and logistics, and also on computer applications (Intelligent Transport Systems), will be pursued -although trying to preserve as much as possible an integrated across-disciplines approach.

The Master’s Programme shall include transfer of knowledge of methodologies, technology and impact assessment among the members of participating academic institutions of the Adriatic region. The program shall have a strong economic and quantitative approach and shall include state-of-the-art course work addressing assessment of social and environmental impacts. It will deal with issues of importance in transport education including deregulation, privatisation, inter-modal issues, market operation, economic development, international transport, social and environmental impacts, hazardous freight management and ITS assessment. Most importantly, it will be a trans-national programme allowing the students to gain all-round knowledge of transport issues in various European countries as well as to benefit from different teaching styles. A detailed outline of the MaEST Programme is shown in the following table.

<b>I° CYCLE (3-4 months): Compulsory Learning Modules (MO=300 hours)</b>
<b>TRANSPORT ECONOMICS</b>
Transport economics
Environmental economics and social impacts of transport
Financing of transport infrastructure
<b>TRANSPORT ENGINEERING</b>
Planning and management of transportation systems
Traffic demand/supply models
Freight Traffic Analysis
<b>TRANSPORT LAW</b>
Analysis of international transport directives and procedures
National transport planning
Regional transport planning
<b>II° CYCLE (4 months): Optional Learning Modules (MF=300 hours)</b>
<b>TRANSPORT ECONOMICS</b>
Econometric Applications
Project Management
Administration of Public and Private Transport Enterprises
Maritime Transport Economics and International Shipping
<b>TRANSPORT ENGINEERING</b>
Network Analysis (Operational Research)
Probability and Statistical Applications
Risk and Decision Analysis
<b>TRANSPORT LAW</b>
Law for Logistics and Transport Economics (in collaboration with other on-going courses at the University of Bologna)
EU Enlargement processes
<b>LOGISTICS</b>
Logistics for marketing
Short-Sea Shipping
Management of Sea and River Port Infrastructure
<b>INFORMATION TECHNOLOGY AND TRANSPORT</b>
Geographic Information Systems
Intelligent Transport Systems and Applications of Neural Networks
Traffic Safety and Behavioural Issues in Transport
<b>III° CYCLE (4-5 months): Research and Practical Activities (AA/R)</b>
<b>NB – Titles and number of modules, and macro-area definitions are still indicative</b>