The Master's Degree in Advanced Engineering, Production, Logistics and Supply Chain (MUIAPLCS), is an official degree from the Polytechnic University of Valencia, which is taught at the Higher Technical School of Industrial Engineers (ETSII) and promoted by the Research Center of Management and Production Engineering (CIGIP). The first edition of the master was held in the 2006-07 academic year.

The most relevant specific competences that the student is expected to reach at the end of the courses are:

1. Know and identify the level of interdependence (collaboration) relationships in the Planning, Forecasting and Replenishment processes in the Supply chain.
2. Skills in advanced distribution modeling and inventory management (multi-scale inventories), as well as optimization and heuristic algorithms.
3. Ability to design and implement advanced production systems in production and inventory systems.
4. Skills in the Identification of the Relations between Supply Chain actors and their implication regarding the interoperability of ICT.
5. Aptitude in the Definition and Evaluation of different alternatives for Internal Logistics, with special attention to maintenance and storage, as well as their equipment.
6. Knowledge of the different types of logistics operators in the supply chain, by identifying and comparing the 3PL and 4PL operators.
7. Skills for the identification and evaluation of different alternatives of land, sea and air transport, with special attention to their maintenance and storage and specific procedures.
8. Knowledge of the Economy of Logistics and Transportation, and of the methodologies and tools for the evaluation of different logistics and transport alternatives.
9. Skills in Quantitative Modeling and Resolution of Management Problems in the Supply Chain, with special attention to both aggregate planning and teacher planning in centralized and distributed contexts.
10. Skills in the analysis of the functioning of productive systems through their Simulation, through the corresponding computer applications.
11. Skills in production planning and programming in distributed environments, through their corresponding models, algorithms and metaheuristics.
12. Skills in Sequencing and Advanced Balancing in production systems, using the corresponding models and resolution algorithms.

For admission to the Master, the conditions established in Article 16 of RD1393 will be followed in general. Regarding the specific requirements and criteria for the evaluation of merits indicated in Article 17, the Master of Advanced Engineering of Production, Logistics and Supply Chain due to its specialized nature establishes a certain priority of access according to the previous degree (in this case the highest to lowest priority is established):

1. Industrial Engineer (intensification on Industrial Management or any equivalent of previous plans).
2. Ingeniero de Organización Industrial
3. Graduado en Ingeniería de Organizaicón Industrial.
4. Any international degree equivalent in content to the previous three (eg some cases of

Industrial Engineer in Latin American countries).
5. Industrial Engineers with specialties other than those previously mentioned in point 1.
6. Graduates in Business Administration and Management.

The master has a total of 60 ETCS credits, divided into 32 credits of compulsory subjects, 16 credits of optional subjects, and 12 credits of final master work. The student can take the full master in a teaching course, or can opt for partial enrollment. Classes are taught in Spanish, although some classes or seminars can be taught in English.

The master is divided into 2 teaching periods. Classes in semester A begin in early September and end in January, and those in semester B begin mid-February and end in June. The four-month period officially ends in January and June respectively, and the period in which there are no scheduled classes will be used to carry out academic work.

The subjects are:
Semester A:
- Mandatory:
  - Supply Chain Modeling: Architectures and Engineering
  - Supply Chain Strategy
  - Transportation Management: Infrastructure and Media
  - Advanced Management in Production and Inventory Systems
- Optional block 1:
  - Information Technology and Applications for Supply Chain Management
  - Quantitative Modeling Techniques for Supply Chain Management
- Optional block 2:
  - Internal Logistics and Warehouse Design and Management
  - Logistics Operators 3PL / 4P

Semester B:
- Mandatory:
  - Supply and Distribution Logistics
  - Performance Management Systems
  - Business Process Management
  - Supply Chain Simulation
- Optional block 1:
  - Collaborative Process Management in the Supply Chain
  - Production Planning and Programming in Distributed Environments
- Optional block 2:
  - Foreign trade
  - International logistics

Most subjects are usually assessed through the development of cases, exercises and final work.

Although with some exceptions, classes are held every day from Monday to Friday, and always from 4 pm to 8 pm. There are 6 subjects in each semester, and all of them have 40 hours of classes.

The communication with the coordinator of the master is done through the e-mail

muiaplcs@upv.es, and the updated information is available at http://www.upv.es/titulación/MUIAPLCS/