

| Programme of “ <b>Logistica Industriale</b> ” - “ <b>Supply Chain Management</b> ”   |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Code: <b>I2G019</b></li> <li>• Type of course unit: <b>compulsory</b></li> <li>• Level of course unit: <b>second cycle</b></li> <li>• Year of study: <b>second</b>, semester: <b>first</b></li> </ul> |  |   |
| Number of ECTS credits: <b>9</b> (workload of <b>90</b> hours of teaching + work at home; 1 credit = 25 hours of total activities)   |  |   |
| Teacher: <b>Prof. Mario Palumbo</b>  |  |   |
| <b>1</b>   | <b>Course objectives</b>   | The aim of the course is to introduce the student in the world of logistics. On successful completion of this module, the students should receive the instruments for designing, planning and managing a supply chain, i.e. a system including: the manufacturer of a given product, its suppliers, warehouses, retailers, and transporters.  |
| <b>2</b>   | <b>Course content and Learning outcomes (Dublin descriptors)</b> | <p>Topics of the module include:</p> <p>Introduction to the SCM. SC Strategy and Planning. The SC Product. SC Customer Service. Order Processing and Information Systems. Warehouses. Packaging. Inventory management. Material handling. Transport fundamentals. Transport decisions: vehicle routing and scheduling. Demand forecasting. Facility location decisions.</p> <p>On successful completion of this module, the student will:</p> <ul style="list-style-type: none"> <li>- have knowledge of basic Push/Pull cycles and processes in the SCM;</li> <li>- have knowledge and understanding of the procedures to: <ul style="list-style-type: none"> <li>○ size storage systems;</li> <li>○ select optimal routing and scheduling of vehicles;</li> <li>○ carry out demand forecasting;</li> <li>○ identify and maintain correct levels of inventory.</li> </ul> </li> <li>- be able to select: <ul style="list-style-type: none"> <li>○ best packaging according to product characteristics;</li> <li>○ best storage and handling system for a given manufacturing scenario;</li> <li>○ best transportation options according to the characteristics of supply chain channels to be served;</li> <li>○ best locations of facilities along the supply chain.</li> </ul> </li> </ul> |
| <b>3</b>   | <b>Prerequisites and learning activities</b>                     | Prerequisites: mathematics; physics; basics of manufacturing processes.   |
| <b>4</b>   | <b>Teaching methods and language</b>                             | <p>Lectures and exercises. Language: Italian</p> <p><b>Ref. Text books:</b></p> <ul style="list-style-type: none"> <li>• R.H.Ballou - Business Logistics / Supply Chain Management - Pearson Prentice Hall</li> <li>• S.Chopra, P.Meindl - Supply Chain Management: Strategy, Planning, and Operation - Prentice Hall</li> <li>• R.A.Kulwiec – Materials Handling Handbook – John Wiley &amp; Sons</li> </ul> <p>Some didactic materials and scientific papers published by the teacher</p>   |
| <b>5</b>   | <b>Assessment methods and criteria</b>                           | Oral examination, Discussion of technical reports prepared by students before the final examination   |