Logistics and Supply Chain Management Specialization

The **Logistics and Supply Chain Management** specialization is one of the most important areas within industrial engineering, focusing on optimizing the flow of goods, information, and capital throughout the supply chain. This specialization aims to design, manage, and improve the processes of sourcing, production, distribution, and delivery of goods and services. Its main goal is to enhance efficiency, reduce supply chain costs, and improve quality and customer satisfaction. This field is applicable across various industries, including manufacturing, retail, transportation, healthcare, and services. Graduates of this specialization will be equipped to provide scientific and practical solutions in designing, optimizing structures and processes within the supply chain, improving performance, and implementing supply chain management systems as experts in the field.

Key Skills Required

- Analysis and modeling of supply chain processes
- Problem-solving skills
- Decision-making under uncertainty
- Planning and optimization abilities
- Inventory and demand management
- Knowledge of transportation and distribution
- Data handling and statistical analysis

Commonly Used Software

- SAP SCM
- AnyLogic
- Arena
- MATLAB
- Lingo
- GAMS
- Tableau
- Power BI
- Python (Pandas, SciPy)
- Excel (Solver, VBA)

Job Opportunities and Career Fields

- Supply chain management in manufacturing and service companies
- Logistics and transportation planning
- Warehouse and distribution management
- Analysis and optimization of supply systems
- Consulting in supply chain management
- Design and implementation of ERP systems