JÖNKÖPING UNIVERSITY
School of Engineering

2019-10-04

Student Qualifications for IPC

Program: Sustainable Supply Chain Management, 180 credits

Program Manager: Vanajah.Siva@ju.se

The program aims to provide students with a deep knowledge of the design, planning and control of logistics and industrial operations. Specifically, the program aims to provide the students with solid understanding of sustainability issues in the various levels of contemporary supply chains, from purchasing and supply to production, distribution and retailing. The issues include environmental, social and human factors, as well as planning for successful leadership and management of organizations.

Prior to the Industrial Placement Course in Industrial Engineering and Management (12 credits) in semester 4, the students have received training in:

Logistics Engineering
- The Logistics system
- Materials Planning and Control
- Inventory Management

Principles of Sustainable Supply Chain Management
- Introduction to Sustainability in Supply Chains
- Reverse Logistics and Recycling
- Sustainable Warehousing and Transport

Basic Calculus
- Mathematical Reasoning, Logic and Problem Solving
- Elementary Functions, Derivatives and Integrals
- Limits and Continuity

Mathematical Statistics
- Basic Probability Theory
- Descriptive Statistics
- Hypothesis Testing

Research Methods and Communication
- Formulating a Research Report
- Critical Review of Scientific Work
- Oral Presentation Skills

Work, Human, Technology
- Socio-technical systems
- Workplace Assesment
- Swedish Health and Safety Legislation

Corporate social responsibilities
- Stakeholder Analysis
- Implementing and Communicating a CSR strategy
- Corporate Ethics and Philantropy

Retailing
- Retail operations
- e-Commerce and Multi-Channel Retailing
- Distribution structures

Lean and Green Logistics
- Lean Principles and Wastes
- Value Stream Mapping
- Time Studies

Linear Algebra and Optimization
- Matrices and Matrix Algebra
- Linear Programming
- The Simplex Method and Sensitivity Analysis

Leadership and Project Management

- Organizational Structures
- Group Dynamics and Leadership
- Project Management

Business Planning and Entrepreneurship

- Developing a Business Plan
- Investment, and Profitability Calculation
- Entrepreneurship Principles

Quality Management and Entrepreneurship

- Total Quality Management (TQM)
- Design of Experiments
- Statistical Process Control

Purchasing and Supply Chain Management

- Purchasing and Strategic Sourcing
- Legal Aspects and Contract management
- Supplier Relationship Management