



Engineering and Technology Management

COURSE SYLLABUS

Course Number: E M 560

Course Name: Integrated Supply Chain Management

Instructor: Luna Magpili

email: luna.magpili@wsu.edu

Semester Credits: 3

Prerequisites: None

Course Description and Objectives:

Every organization has internal supply chains and links to external suppliers and customers. Interlinking organizations span the spectrum from raw materials to finished products and services in the hands of the consumer. The supply chain extends even to final disposition of the commodities we consume from concept to grave. The structured dependency of such chains, the uncertainty of forecasts and systemic delays are amplified as individual links in the supply chain try to optimize their performance. Even minor changes in the market can cause wild swings in economic performance. Students learn how modern operation theories and information systems hold the promise of stabilizing some of the variability by providing visibility along the whole supply chain. And how additional control and operational performance factors are needed to provide a complete solution. This course examines the strategy and tactics of supply chain management to include “how to” techniques to implement, measure, and reward the individual links in the supply chain.

Course Topics:

- Introductory Concepts to Supply Chain Management
- Supply Chain Strategies, Drivers and Metrics
- Network Design
- Global Supply Chains
- Forecasting and Aggregate Planning
- Production, Operations, and Management
- Sales, Pricing, and Revenue Management
- Managing Economies of Scale
- Product Availability and Uncertainty
- Sourcing and Coordination
- Risk Management in Supply Chains
- Information Technology in Supply Chains
- TOC for Supply Chains
- Green Supply Chains and Sustainability

Grading:

Mid-Term Exam: 15%, Homework: 30%, Final Exam: 15%, Case Study: 30%, Participation: 10%