**Book Title:** Manufacturing and Service Operations: Master the Strategies and Tactics for Planning, Organizing, and Managing How Products and Services Are Produced  
**ISBN-13:** 9780133438697

**Description:**
To succeed in manufacturing and service operations, managers need both technical and behavioral skills, and know how to apply these skills to transform processes and outputs in a wide variety of operational contexts throughout the supply chain. This course covers the planning, organizing, controlling, directing, motivating and coordinating functions used to produce goods or services. Students will also gain a deep understanding of long-term strategic decisions such as facility location; mid-term tactical decisions such as setting levels of inventory and labor; and short-term operational decisions such as job assignments.

**Outcomes:**
- Describe basic manufacturing and service operations concepts, purposes, terminology, roles, and goals; types of manufacturing and services; planning processes; inventory and labor requirements; process control; productivity levels, and budget control
- Explain key elements, processes, and interactions, including facility, material, and labor requirements planning; scheduling; and continuous process and quality improvement processes, including TQM, ISO, Six Sigma, SPC, Theory of Constraints, FMEA, and 5S
- Describe principles/strategies for establishing efficient, effective, and sustainable operations: Manufacturing and services planning and strategies, encompassing facility ownership and location, production, processes, layout, lead capacity, technology, personnel, measurement, compensation, sustainability, and more
- Describe the key roles and value of technology, including MRP II systems, service systems, ERP systems, and capabilities for supporting manufacturing and service planning, execution, and cost management.
- Explain requirements and challenges of global manufacturing and service operations, including manufacturing and outsourcing in Low-Cost Countries (LCCs); logistical difficulties, labor challenges, financial implications, decision processes, contract performance, risk management, and regulation
- Describe best practices for assessing performance using standard metrics and frameworks: KPIs, tradeoff analysis, scorecarding, dashboards, and exception management