DESCRIPTION

Comprehensively teaches the fundamentals of supply chain theory

This book presents the methodology and foundations of supply chain management and also demonstrates how recent developments build upon classic models. The authors focus on strategic, tactical, and operational aspects of supply chain management and cover a broad range of topics from forecasting, inventory management, and facility location to transportation, process flexibility, and auctions. Key mathematical models for optimizing the design, operation, and evaluation of supply chains are presented as well as models currently emerging from the research frontier.

*Fundamentals of Supply Chain Theory, Second Edition* contains new chapters on transportation (traveling salesman and vehicle routing problems), integrated supply chain models, and applications of supply chain theory. New sections have also been added throughout, on topics including machine learning models for forecasting, conic optimization for facility location, a multi-supplier model for supply uncertainty, and a game-theoretic analysis of auctions. The second edition also contains case studies for each chapter that illustrate the real-world implementation of the models presented. This edition also contains nearly 200 new homework problems, over 60 new worked examples, and over 140 new illustrative figures.

Plentiful teaching supplements are available, including an Instructor’s Manual and PowerPoint slides, as well as MATLAB programming assignments that require students to code algorithms in an effort to provide a deeper understanding of the material.
Ideal as a textbook for upper-undergraduate and graduate-level courses in supply chain management in engineering and business schools, *Fundamentals of Supply Chain Theory, Second Edition* will also appeal to anyone interested in quantitative approaches for studying supply chains.

### ABOUT THE AUTHOR

**Lawrence V. Snyder, PhD,** is Professor in the Department of Industrial and Systems Engineering and Co-Director of the Institute for Data, Intelligent Systems, and Computation at Lehigh University. He has written numerous journal articles and tutorials on optimization models for supply chains and other infrastructure systems, with a focus on decision-making under uncertainty.

**Zuo-Jun Max Shen, PhD,** is Professor in the Department of Industrial Engineering and Operations Research and the Department of Civil and Environmental Engineering at the University of California at Berkeley. He is an INFORMS Fellow and has published and consulted extensively in the areas of integrated supply chain design and management, data driven decision making, and systems optimization.

### RELATED RESOURCES

**Student**  
View Student Companion Site

**Instructor**  
View Instructor Companion Site

For additional product details, please visit [https://www.wiley.com/en-us](https://www.wiley.com/en-us)