



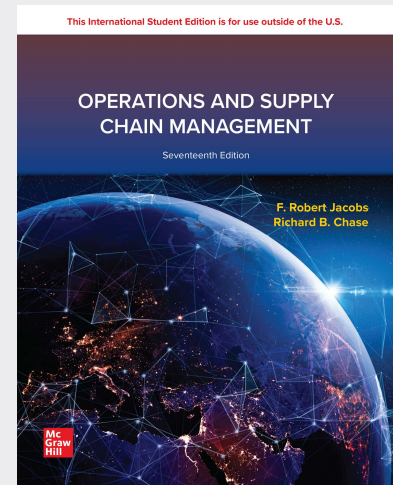
LIST OF CHANGES

Operations and Supply Chain Management

17th Edition

Jacobs and Chase

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- The revisions reflect how the field is changing with new, relevant vignettes that feature Moderna, the All-Electric Chevy Silverado RST truck, Starlink and SpaceX, Orlando Universal Studios, AI Manufacturing Technology, AI Demand Forecasting, Scheduling MLB, and self-driving trucks.
- Four new Analytics Exercises were added totaling 15 Exercises with updates to increase clarity, simplify assumptions, and build better learning tools while integrating the supply chain analytics emphasis of this 17th edition.
- Insights from the impact of supply chain disruptions have been added to current OSCM issues with examples showing the hazards of lean manufacturing practices learned during the COVID-19 pandemic, the bullwhip effect that led to shortages in toilet paper, and more.
- The addition of Interactive Excel exercises and automated assignment grading system for the Discussion and Objective Questions, and Analytical Exercises make Connect a great instructor tool.

Take your students higher.

McGraw Hill Connect® is a complete course platform. It helps you deliver cohesive learning experiences through structured content and interactivity. When students engage with Connect, their individual needs become clear. This enables you to assign coursework, aligned to the levels of Bloom's Taxonomy, that keeps your students moving forward on their unique learning path from foundational cognitive skills to higher-order thinking and application. The chart below shows how each asset type aligns to Bloom's Taxonomy.

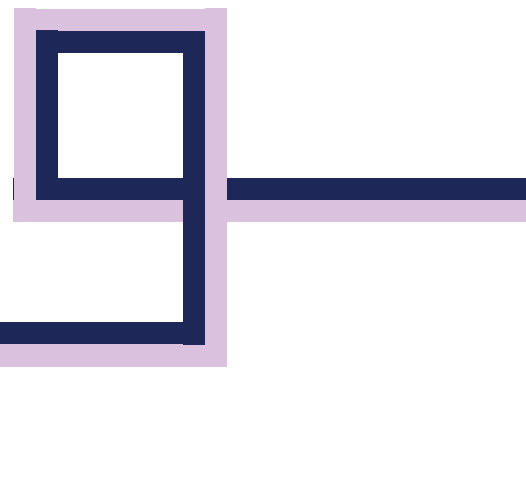
LOWER  HIGHER

| ASSET | DESCRIPTION | REMEMBER | UNDERSTAND | APPLY | ANALYZE | EVALUATE | CREATE |
|--------------------------------|---|----------|------------|-------|---------|----------|--------|
| SmartBook 2.0 | An adaptive reading experience that has been made more personal, accessible, productive, and mobile. SB2.0 gives instructors an assignable reading option that's adaptive and makes students accountable and prepared to understand concepts before class starts. | ✓ | ✓ | | | | |
| Guided Examples | Narrated videos provide step-by-step walkthroughs of algorithmic versions of assigned problems in Connect, providing immediate feedback and focus on the areas where students need the most guidance. This allows students to identify, review or reinforce the concepts and activities covered in class. | ✓ | ✓ | ✓ | | | |
| NEW! OM Prep Modules | Statistics, Excel, and Math modules are assignable in Connect as prerequisite modules with brief short videos and check questions that are auto-graded. Assigned early in the course, it gets all students in the class on the same level of preparedness for quantitative OM content. | ✓ | ✓ | ✓ | | | |
| OM in the News | A blog and newsletter created by OM faculty for OM faculty, containing up-to-date news articles and video, followed by critical thinking questions for use in class providing relevancy and student interest. | ✓ | ✓ | ✓ | | | |
| Integrated Excel | The power of Microsoft Excel meets the power of McGraw Hill Connect in our all-new integration of Excel in Connect. In this new assignment type, Excel opens seamlessly inside Connect with no need to upload or download any additional files or software. Instructors choose their preferred auto-graded solution with the option for either grading for formula accuracy or the solution value | ✓ | ✓ | ✓ | ✓ | ✓ | |

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| | | LOWER → HIGHER | | | | | |
|---|---|---|------------|-------|---------|----------|--------|
| ASSET | DESCRIPTION | REMEMBER | UNDERSTAND | APPLY | ANALYZE | EVALUATE | CREATE |
| Algorithmic and Static Exercises | This assignable, gradable end-of-chapter content helps students learn to solve problems and apply the concepts in business analytics. Algorithmic versions allow students to practice problems as many times as they need to ensure that they fully understand each problem | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Practice Operations Simulated Game | A 3D, interactive, game-based simulation for students to manage operations of a clothing manufacturing and distribution company that provides real world decision making and operations management skills. | ✓ | ✓ | ✓ | ✓ | ✓ | |
| NEW! Application Based Activities | Highly interactive activities that immerse students in real-world business environments. Students are challenged to apply multiple concepts and make data-informed decisions. | ✓ | ✓ | ✓ | ✓ | ✓ | |



Connect Platform-Wide Updates

- **NEW!** Updated instructor experience provides a simplified dashboard, quicker and easier access to information you need with fewer clicks. Newly optimized for mobile usage and with accessibility enhancements, pages are now screen-reader compatible, key board navigable, and allow for up to 400% magnification.
- **NEW!** Co-instructor privileges are now available. Instructors can easily add instructors to any section.
- **NEW!** Writing Assignment has the option to assign a peer review, including the ability to set the number of peer reviews, automatic assigning after the draft due date, and anonymous peer commenting.
- **NEW!** Increased maximum points to 2,000 points for an individual question or assignment.
- **NEW!** Streamlined integration with your Learning Management System (LMS). The new LTI Advantage integration allows for easier section pairing, automatic account creation for new users, improved visibility into grade sync features, automatic relinking, and better security.
- **NEW!** Polling Tool is now available as a resource in Connect.
- More mobility. Free download the ReadAnywhere® App and Connect tablet app allows students full access to their Connect course to complete assignments, read their eBook, and check grades—just like they would on a laptop browser.
- Accessibility enhancements ensure new content and technology follows the WCAG version 2.1 AA guidelines and best practices. Some examples of enhancements include a compliant click-and-drag question type in the Question Bank, alt descriptions added to eBook for screen reader users, increased accessibility to presentation PowerPoints, and read-aloud functionality in SmartBook 2.0. For further information regarding McGraw Hill accessibility, please contact us at accessibility@mheducation.com.
- World-class reliability with 99.9% platform uptime.
- Option for students to purchase a loose-leaf version of the text at a significant discount with free shipping.
- Partnership with the Online Learning Consortium (OLC) provides an even higher level of expertise and support when transitioning your course.



Chapter-by-Chapter Changes

Chapter 1: Introduction

- The initial example was changed and now relates to making three types of jeans using a combination of domestic and global suppliers. Insight from the impact of supply chain disruptions has been added to current OSCM issues.
- The Analytics Exercise using efficiency measures was updated, and it is now easier to obtain the comparison data.

Chapter 2: Strategy

- The opening vignette now features Moderna, the innovative Covid-19 vaccine provider.
- The Activity-System-Map was updated.
- The section on risk was rewritten to reflect current thought.
- The new Analytics Exercise “Carbon Footprint Quiz,” was added. This is an exercise requiring CO2 emissions calculations.

Chapter 3: Design of Products and Services

- A new opening vignette that features the All-Electric Chevy Silverado RST pickup truck was written for this chapter.
- There are also many updates to examples in the chapter.

Chapter 4: Projects

- The new opening vignette features Starlink, the innovative Elon Musk project that provides broadband Internet using a constellation of satellites in low Earth orbit. Many other edits were made to the chapter to clarify notation.

Chapter 5: Strategic Capacity Management

- The opening vignette featuring the Tesla Model 3 was updated.
- Objective Question 9 was updated to make it easier to understand.
- The Shouldice Hospital case was updated.

Chapter 5S: Investment Analysis

- Only minor changes were made.

Chapter 6: Learning Curve

- A new Tesla’s Model 3 Learning Curve Analytics Exercise was added.
- New material was added to the chapter showing how to fit a power function to historical production data to obtain learning curve parameters using Excel. The new Analytics Exercise uses the technique.

Chapter 7: Manufacturing Processes

- A new AI Manufacturing Technology opening vignette was written. The vignette discusses the use of vision technology for monitoring manufacturing processes.

Chapter 7S: Manufacturing Technology

- Only minor changes were made.

Chapter 8: Facility Layout

- The pictures were changed to better correspond to the different types of layouts described in the chapter.
- Objective Question 8 was updated to clarify what is meant by rectilinearly.

Chapter 9: Service Processes

- A new opening vignette featuring Orlando Universal Studios was added. Material on platform services was updated, and many other changes were made to better reflect the impact the Internet has had on services.

Chapter 9S: Health Care

- Changes were made to the capacity metrics to reflect what is currently used by health care providers.

Chapter 10: Waiting Line Analysis and Simulation

- Objective Question 18 was updated to make it clearer.

Chapter 11: Process Design and Analysis

- When Little’s Law is appropriate for use was clarified.
- The Runner Edge case was rewritten to remove reference to queuing models.

Chapter 11S: Operations Consulting

- This was updated to focus on Operating Consulting. Terminology was updated to remove reengineering.
- Other updates reflect current companies.

Chapter 12: Quality Management

- The title of the chapter better reflects current thought.
- The Baldrige Award criteria were revised, and Tesla's Quality Challenge case was updated to reflect the new global activity of the company.

Chapter 13: Statistical Quality Control

- Terminology in the opening vignette was revised to reduce confusion.
- The standard deviation formula was fixed, the solution to Solved Problem 3 was rewritten, and previous edition Objective Questions 11 and 12 were deleted.

Chapter 14: Lean Supply Chains

- The opening vignette on the hazards of lean manufacturing practices learned during the Covid-19 Pandemic is new. The term muda as often used to refer to elimination of waste in supply chains, was added, and the Value Stream Mapping presentation was updated.

Chapter 15: Logistics and Distribution Management

- The name of chapter was changed to better reflect the topics in it, and the section on Distribution Facilities was rewritten to reflect refinements in the use of the terms warehouse, distribution center, and fulfillment center.
- Two OSCM at Work boxes were added; one describes Amazon's supply chain, and the other features self-driving truck technology.

Chapter 16: Global Sourcing and Procurement

- The new opening vignette How the Covid-19 Pandemic Led to Empty Shelves introduces the bullwhip effect in the context of shortages in toilet paper.
- The new OSCM at Work box titled SpaceX—Orbit Freight Carrier was included.
- The impact of reusable rockets on the ability to place satellites in Earth orbit is described.
- Examples in the chapter were also updated.

Chapter 17: The Internet of Things and ERP

- A new opening vignette titled The World of Connected Assets was added.

Chapter 18: Forecasting

- The Starbucks opening vignette was updated.
- A new OSCM at Work that describes the use of Artificial Intelligence (AI) in Demand Forecasting was added.
- Finally, the new Analytics Exercise Forecasting Demand at Sebastian River Farms uses regression to find a trend line. It then moves to the calculation of multiplicative season indexes to forecast future demand.

Chapter 19: Sales and Operations Planning

- The costs in the examples were updated to better reflect current values.
- The name of Bradford Manufacturing in the Analytics Exercise was changed, and the data in it was updated.

Chapter 19S: Linear Programming Using the Excel Solver

- Only minor edits were made.

Chapter 20: Inventory Management

- The new Analytics Exercise Inventory Control at Sebastian River Farms was added. The exercise involves setting reorder points and treeplanting decisions at a tree farm.

Chapter 21: Material Requirements Planning

- The description of MRP and the Least Unit Cost section were updated.

Chapter 22: Workcenter Scheduling

- The new opening vignette that describes the scheduling of Major League Baseball teams was added.

Chapter 22S: Theory of Constraints

- The five-step focusing process for bank loans was updated

