

# OPERATIONS MANAGEMENT

**CANADIAN EDITION**



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To: Suzanne, Alexandra and Kathleen



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Professor Render has co-authored 10 textbooks for Prentice Hall, including *Managerial Decision Modeling with Spreadsheets*, *Quantitative Analysis for Management*, *Service Management*, *Introduction to Management Science*, and *Cases and Readings in Management Science*. *Quantitative Analysis for Management*, now in its 10th edition, is a leading text in that discipline in the United States and globally. Dr. Render's more than 100 articles on a variety of management topics have appeared in *Decision Sciences*, *Production and Operations Management*, *Interfaces*, *Information and Management*, *Journal of Management Information Systems*, *Socio-Economic Planning Sciences*, *IIE Solutions*, and *Operations Management Review*, among others.

Dr. Render has been honored as an AACSB Fellow and was twice named a Senior Fulbright Scholar. He was Vice President of the Decision Science Institute Southeast Region and served as Software Review Editor for *Decision Line* for six years and as Editor of the *New York Times* Operations Management special issues for five years. From 1984 to 1993, Dr. Render was President of Management Service Associates of Virginia, Inc., whose technology clients included the FBI; the U.S. Navy; Fairfax County, Virginia; and C&P Telephone.

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Dr. Griffin continues to write for practitioner-targeted publications and develops a continuous stream of technical manuals, materials, and courses for both the academic and industrial sectors. He remains an active member of the Editorial Advisory Board for the *Journal of Financial Planning*.

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# Preface

Welcome to your operations management (OM) course and to the first Canadian edition of this textbook. This text presents a state-of-the-art view of the activities of the operations function from a Canadian perspective. Operations is an exciting and dynamic area of management which has a profound effect on the productivity of both services and manufacturing. Indeed, few other activities have so much impact on the quality of your life. The goal of this book is to present a broad introduction to the field of operations in a realistic, meaningful, and practical manner. OM includes a blend of subject areas, including accounting, industrial engineering, management, management science, and statistics. Whether you intend on pursuing a career in the operations field or not, you will likely be working with people in operations. Therefore, having a solid understanding of the role of operations in an organization is of substantial benefit to you. This text will also help you understand how OM affects society and your life. Certainly, you will better understand what goes on behind the scenes when you buy a coffee at Tim Hortons, take a flight from Edmonton to Vancouver, place an order with Amazon.ca, or enter a Canadian hospital for medical care.

Although many readers of this book are not OM majors, students studying marketing, finance, accounting, and MIS will hopefully find the material both interesting and useful as they develop a fundamental working knowledge of the operations side of the firm.

## ABOUT THE CANADIAN EDITION

The goal of this first Canadian edition is to retain the features and strengths that have made this book so successful over the years while bringing a new Canadian perspective to the text. Readers will find examples of Canadian companies and success stories woven throughout the book with cases drawn from the manufacturing and service industry taken from both the private and public sectors. The text describes many Canadian locations and uses Canadian data when available. Readers can follow the story of the construction of a hockey arena as a recurring case study that touches upon many aspects of OM in a familiar setting. It is also important to acknowledge the global nature of today's business environment. Operations management is a discipline that encompasses both the local and the international, with global considerations affecting everything from location strategies to scheduling and transportation. This Canadian edition therefore retains many of the best and most familiar U.S. and international examples.

A partial listing of new Canadian examples in the book includes:

Magna International (Chapter 1)	Loblaw Companies Limited (Chapter 9)
Porter Airlines (Chapter 2)	Canadian hospital management (Chapter 10)
Bell Canada (Chapter 2)	WestJet (Chapter 10)
Mr. Lube (Chapter 2)	Supply Chain Management Inc. (Chapter 11)
EllisDon (Chapter 3)	Backsourcing to small-town Canada (Chapter 11 Supplement)
Canadian gun registry (Chapter 3)	Canadian Tire (Chapter 12)
Atomic Energy of Canada Limited (Chapter 3)	Air Canada (Chapter 15)
StackTeck Inc. (Chapter 5)	Bombardier (Chapter 16)
Department of National Defence (Chapter 6)	Ontario Power Generation (Chapter 17)
Maple Leaf Foods (Chapter 6)	Belairdirect (Module D)
Fredericton International Airport Authority Inc. (Chapter 7 Supplement)	Toronto General Hospital (Module F)
Tim Hortons (Chapter 8)	

## SPECIAL LEARNING FEATURES

The Canadian edition has also retained many of the hallmark features of *Operations Management* that help new students better engage with the material and develop a deeper understanding of the critical aspects of OM.

**Integrated Video Case Studies** The book features a number of integrated *Video Case Studies* that take you behind the scenes of various organizations and show you how concepts presented in this textbook are applied in real life. Topics such as statistical quality control, green manufacturing and sustainability, inventory management, maintenance, and overall OM strategy are covered in a series of 8- to 14-minute videos focusing on Frito-Lay, Darden Restaurants, Hard Rock Cafe, Arnold Palmer Hospital, Wheeled Coach Ambulances, and Regal Marine.

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# OPERATIONS MANAGEMENT

**CANADIAN EDITION**