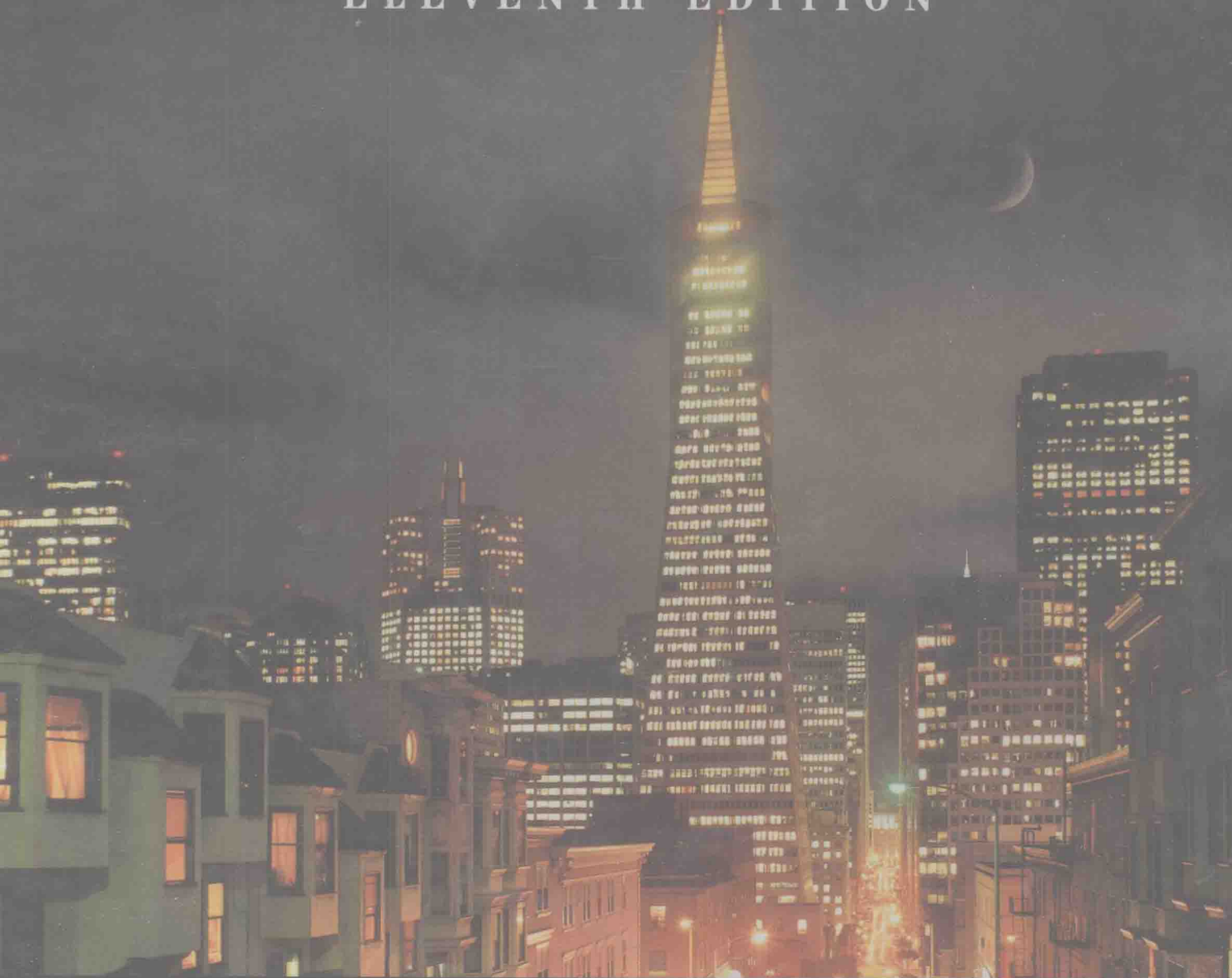


CHAPTERS 1–15

INTRODUCTION TO

# MANAGEMENT ACCOUNTING

ELEVENTH EDITION



HORNGREN      SUNDEM      STRATTON

# INTRODUCTION TO MANAGEMENT ACCOUNTING

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*Eleventh Edition*

CHAPTERS 1-15

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*To Joan, Chelsea, Erik, Marissa,  
Liz, Garth, Jens,  
Norma, Gina, Adam, and Nisha*

**Charles T. Horngren** (center) is the Edmund W. Littlefield Professor of Accounting, Emeritus, at Stanford University. A graduate of Marquette University, he received his MBA from Harvard University and his Ph.D. from the University of Chicago. He is also the recipient of honorary doctorates from Marquette University and DePaul University.

A Certified Public Accountant, Horngren served on the Accounting Principles Board for six years, the Financial Accounting Standards Board Advisory Council for five years, and the Council of the American Institute of Certified Public Accountants for three years. For six years, he served as a trustee of the Financial Accounting Foundation, which oversees the Financial Accounting Standards Board and the Government Accounting Standards Board.

Horngren is a member of the Accounting Hall of Fame.

A member of the American Accounting Association, Horngren has been its President and its Director of Research. He received its first annual Outstanding Accounting Educator Award.

The California Certified Public Accountants Foundation gave Horngren its Faculty Excellence Award and its Distinguished Professor Award. He is the first person to have received both awards.

The American Institute of Certified Public Accountants presented its first Outstanding Educator Award to Horngren.

Horngren was named Accountant of the Year, Education, by the national professional accounting fraternity, Beta Alpha Psi.

Professor Horngren is also a member of the Institute of Management Accountants, where he has received its Distinguished Service Award. He was a member of the Institute's Board of Regents, which administers the Certified Management Accountant examinations.

Horngren is the author of other accounting books published by Prentice-Hall: *Cost Accounting: A Managerial Emphasis*, Ninth Edition, 1997 (with George Foster and Srikant Datar); *Introduction to Financial Accounting*, Seventh Edition, 1999 (with Gary L. Sundem and John A. Elliott); *Accounting*, Fourth Edition, 1999 (with Walter T. Harrison, Jr., and Linda Bamber); and *Financial Accounting*, Third Edition, 1999 (with Walter T. Harrison, Jr.).

Horngren is the Consulting Editor for the Charles T. Horngren Series in Accounting.

**Gary L. Sundem** (left) is the Julius A. Roller Professor of Accounting and Co-Chair of the Department of Accounting at the University of Washington, Seattle. He received his B.A. degree from Carleton College and his MBA and Ph.D. degrees from Stanford University.

Professor Sundem was the 1992-93 President of the American Accounting Association. He was Executive Director of the Accounting Education Change Commission, 1989-91, and served as Editor of *The Accounting Review*, 1982-86.

A member of the Institute of Management Accountants, Sundem is past president of the Seattle chapter. He has served on IMA's national Board of Directors, the Committee on Academic Relations, and the Research Committee.

Professor Sundem has numerous publications in accounting and finance journals including *Issues in Accounting Education*, *The Accounting Review*, *Journal of Accounting Research*, and *The Journal of Finance*. He was selected as the Outstanding Accounting Educator by the American Accounting Association in 1998 and by the Washington Society of CPAs in 1987. He has made more than 150 presentations at universities in the United States and abroad.

**William O. Stratton** (right) is Professor of Accounting at the University of Southern Colorado. He received B.S. degrees from Florida State University and Pennsylvania State University, his MBA from Boston University, and his Ph.D. from the Claremont Graduate School.

A Certified Management Accountant, Stratton has lectured extensively at management accounting conferences in North America and Europe. He has developed and delivered professional workshops on activity-based management and performance achievement to manufacturing and service organizations throughout the United States and South America. In 1993, Professor Stratton was awarded the Boeing Competition prize for classroom innovation.

Stratton has numerous publications in accounting and international business journals including *Management Accounting*, *Decision Sciences*, *IIE Transactions*, and *Synergie*.



# PREFACE

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***“Managers have to understand how their decisions affect costs if they want to make good decisions.”***

*Introduction to Management Accounting*, 11/E, takes the view that managers make important economic decisions. We want students to view management accounting as an essential tool that enhances managers’ abilities to make good economic decisions. *IMA*, 11/E, describes the concepts and techniques that managers and accountants use to produce information for decision making. Because understanding concepts is more important than memorizing techniques, this book introduces the concepts together with the techniques. From the first chapter, students are encouraged to think about why techniques are used, not to blindly apply the techniques. We hope that students will thus be able to learn both the *theory* and *practice* of management accounting. Understanding today’s accounting practice, though, goes beyond mere concepts and techniques. To illustrate real-world practice and to highlight how management accounting helps managers understand the potential impacts of their decisions, the concepts and techniques in this book are presented in the context of real decisions. Two of the authors were members of the Accounting Education Change Commission (AECC) and recommendations of the AECC have been implemented throughout the text.

This book attempts a balanced, flexible approach. It deals as much with nonprofit, retail, wholesale, selling, and administrative situations as it does with manufacturing. It focuses broadly on planning and control decisions, not on product costing for inventory valuation and income determination.

## OUR PHILOSOPHY

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***Introduce the simple concepts and principles early, revisit them at more complex levels as students gain understanding, and provide appropriate real-company examples at every stage.***

Just as managerial accounting builds on financial accounting, the concepts within managerial accounting build on one another as they are used to facilitate managerial decision making. Once students have fully grasped the more basic concepts, they can then build on what they have learned and progress on to more complex topics. Students begin their understanding of managerial decision making by asking, “How will my decisions affect the costs and revenues of the organization?” and then progress to more complex questions: What is the most appropriate cost management system for the company? What products should we produce? What do our budget variances mean? As students absorb the simpler concepts and techniques of management accounting and move on to the more complex, they will become more comfortable with, and more adept at, using those concepts and techniques to make business decisions.



Our goals have been to choose relevant subject matter and to present it clearly and accessibly, using many examples drawn from actual companies. *IMA*, 11/E, stresses the understanding of concepts, yet makes them concrete with profuse illustrations.

## WHO SHOULD USE THIS BOOK?

*Introduction to Management Accounting*, 11/E, is primarily for students who have had one or two terms of basic accounting. It is also appropriate for continuing educational programs of varying lengths in which the students have had no formal training in accounting. The four financial accounting chapters (Chapters 16-19) make the book especially appropriate for short courses introducing managers to accounting because both financial and management accounting can be presented from a user's perspective without requiring two textbooks.

This text is oriented to managers who use management accounting reports, not accountants. Managers should understand the basics of management accounting, and this book shows how management accounting will be useful to them. However, *IMA*, 11/E, also pays ample attention to the needs of potential accountants and provides them with an understanding of how the reports they produce will be used by decision makers. In focusing on accounting within the context of the overall managerial function, this text covers important topics that all business students should study and demonstrates how accounting bolsters and fits into the broader scheme of today's business environment.

## IMPORTANT CHANGES TO THIS EDITION

- **Two Versions of This Text Now Available.** *Introduction to Management Accounting*, 11/E, is available with chapters 16-19, which provide a financial accounting introduction or review, or without the financial chapters for those instructors wanting only coverage of the core management accounting chapters.
- **Expansion of Modern Management Accounting Topics** Management accounting is changing to meet the needs of today's dynamic business environment. This textbook is also changing to recognize new concepts and techniques. Topics that have been added or expanded in this edition include activity-based management, value-chain analysis, target costing, balanced scorecard, and economic value added.
- **"Business First" Focus Provides Stronger Link to Real World Practice** Understanding business and then applying accounting within a decision-making context continues to be *IMA*'s unifying framework. Each chapter opens with a real company vignette showing "what accounting is" in today's business world. "On Location!" video segments, custom created for this text, reinforce and expand upon each vignette. *IMA*, 11/E, stresses accounting's relevance to business operations by presenting business concepts first, so accounting can be taught within this context. Each chapter includes a comprehensive "capstone" learning objective that links major chapter topics. "Business First" assignments in every chapter revisit the company used in the chapter opening vignette. The PHLIP Web site provides hotlinks to each company's Web site.



- **Take It to the Web!** A huge assortment of financial information is available on the Web—a resource *IMA*, 11/E, utilizes. The PHLIP (Prentice Hall Learning on the Internet Partnership) Web site guides students through many sites and links that make accounting realistic and accessible. The PHLIP Web site also contains links to many of the other companies featured as text examples. For instructors, we provide a passcode protected resource area where instructors can download key supplements.
- **Collaborative Learning Exercises** For those instructors trying to facilitate group learning, each chapter now includes a collaborative learning exercise. Each of these exercises has been specifically designed to promote classroom and student interaction through research, role playing, and other popular learning techniques.
- **Enhanced Accessibility** Students learn best if a text appeals to them. Accordingly, *IMA*, 11/e, has adopted a more open, attractive four-color design. Also, the text's art and photo programs have been improved and expanded, and, perhaps most importantly, the writing style of the text has been simplified and tightened to provide a more student-friendly presentation.

## RETAINED FEATURES

- **Introduction to Management Accounting**, 11/E, is part of a matched set of texts that enables any instructor to teach a full year of financial and management accounting. You can pair this text with *Introduction to Financial Accounting*, 7/E, also available in a new edition, by Horngren, Sundem, and Elliott. Both texts share authors, chapter organization, pedagogy, commitment to emphasizing accounting's importance in business decisions, and depth and breadth of available problem material. The newest editions of each text have been designed to work together as seamlessly as possible.
- Boxed material, highlighting real-world issues, has been expanded and revised.
- As in every edition, *Introduction to Management Accounting*, 11/E, continues to offer the best problem sets available—both in quality and quantity. Problem material in this edition has been updated and expanded and relies extensively on actual business situations.

## SUPPLEMENTS FOR INSTRUCTORS

**INSTRUCTOR'S RESOURCE MANUAL** BY SCOTT YETMAR, DRAKE UNIVERSITY. This supplement contains the following elements: chapter overview, chapter outlines organized by objectives, teaching tips, chapter quizzes, transparency masters derived from textbook exhibits, suggested readings and a Video Guide that carefully integrates the videos into classroom lectures. Also included are Collaborative Learning Techniques based on selected end-of-chapter assignments.

**SOLUTIONS MANUAL AND TRANSPARENCIES BY TEXT AUTHORS.** Solutions are provided for all the end-of-chapter assignments. The Solutions Manual is also available in acetate form and on disk to adopters. A list of check figures provides key amounts for all numerical exercises, problems, and cases.

**TEST ITEM FILE BY MARVIN BOUILLON, IOWA STATE UNIVERSITY.** The Test Item File contains more than 2200 test items. Each chapter includes multiple choice, true/false, comprehensive problems, short-answer problems, and critical thinking questions. Each test item is tied to the corresponding learning objective and has an assigned difficulty level.

**PRENTICE HALL CUSTOM TEST, BY ENGINEERING SOFTWARE ASSOCIATES (ESA), INC.** This computerized Test Item File is an easy-to-use computerized testing program available on 3.5" diskettes. Instructors can create exams, evaluate, and track student results. The PH Custom Test also provides on-line testing capabilities. Test material is drawn from the Test Item File.

**ON LOCATION! VIDEO LIBRARY BY BEVERLY AMER, NORTHERN ARIZONA UNIVERSITY.** Video segments created for this book contain all the fast-paced and engaging qualities of TV while focusing on the successful accounting activities of the real-world companies highlighted in each chapter's opening vignettes. A Video Guide in the Instructor's Resource Manual carefully integrates the videos into your classroom lectures.

**PH PROFESSOR: A CLASSROOM PRESENTATION ON POWERPOINT BY CARROLL BUCK, UNIVERSITY OF NEVADA, RENO.** Available for each chapter of the text, this computerized supplement provides the instructor with an interactive presentation. It is not necessary to have PowerPoint in order to run the presentation. However, having PowerPoint will provide instructors with the flexibility to add slides or modify existing ones to meet course needs.

**POWER NOTES BY CARROLL BUCK, UNIVERSITY OF NEVADA, RENO.** Power Notes are reproductions of PowerPoint slides with additional space for taking notes. Power Notes allow students to focus their attention on class lectures and take down additional explanations and examples given by the instructor. This efficient note-taking supplement is also a great tool for studying!

**ACTIVITIES IN MANAGEMENT ACCOUNTING BY MARTHA DORAN OF SAN DIEGO STATE UNIVERSITY.** This workbook contains interactive learning assignments designed to help students see beyond the technical aspects of accounting through active learning. In addition, these group activities fulfill the AECC recommendations by providing students with the chance to practice and improve their writing, speaking, and reasoning skills. An Instructor's Manual provides an overview of each activity, highlights important content and process objectives, and provides step-by-step instructions for running each activity.

## FOR THE STUDENTS

**STUDY GUIDE BY FRANK SELTO, UNIVERSITY OF COLORADO, BOULDER.** The Study Guide provides overviews, study tips, and chapter reviews formatted for easy note-taking, and self-tests including a variety of test questions and problems to help students prepare for examinations. Full solutions with explanations are included.

**NEW IMPROVED SPREADSHEET TEMPLATES BY ALBERT FISHER, COMMUNITY COLLEGE OF SOUTHERN NEVADA.** Templates are available for selected exercises and problems that are identified in the text by a spreadsheet icon. The documentation includes short tutorials on how to use Excel and Lotus 1–2–3 as well as step-by-step instructions for completing each template. We've enhanced our spreadsheet templates by adding more problems and increasing the difficulty level. Students are now provided with the opportunity to enter more formulas to solve problems. Solutions are available on disk to the instructor upon adoption of the text.

**CAREER PATHS IN ACCOUNTING-CD-ROM (WINNER OF THE NEW MEDIA INVI-SION GOLD AWARD IN EDUCATION!)** Alone or with the text, this CD-ROM provides students with a dynamic, interactive job-searching tool. Included are workshops in career planning, resume writing, and interviewing skills. Students can learn the latest market trends and facts as well as the skills required to get the right job. In addition, the CD-ROM provides the student with salary information, video clips describing specific jobs, and profiles of practitioners in the field.

## NEW!! MEDIA SUPPORT FOR BOTH INSTRUCTORS AND STUDENTS

**PHLIP (PRENTICE HALL LEARNING ON THE INTERNET PARTNERSHIP).** Offers a content rich Web site to support both professors and students. **Visit the site at [www.prenhall.com/phlip](http://www.prenhall.com/phlip).**

- New bi-monthly updates are integrated into specific chapters of the text.
- Internet resources are linked to a wide variety of sites to enhance and expand the texts' coverage of select topics.
- Companion Web site (On-line Study Guide) capabilities allow students to test their knowledge of chapter learning objectives.

# ACKNOWLEDGMENTS

We have received ideas, assistance, miscellaneous critiques, and assorted assignment material in conversations and by mail from many students, professors, and business leaders. Each has our gratitude, but the complete list is too long to enumerate here.

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The Chapters 4 and 12 illustrations of activity-based costing and the Chapter 9 illustration of a management control system are based (in part) on cases developed by Sapling Corporation. Derek Sandison of Sapling provided useful suggestions for these illustrations.

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Comments from readers are welcome.

*Charles T. Horngren*

*Gary L. Sundem*

*William O. Stratton*

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