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FINANCIAL & MANAGERIAL ACCOUNTING

Fourth
Edition

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Paul Kimmel's

Accounting Course Design

Paul Kimmel, co-author on several Wiley accounting titles, teaches at University of Wisconsin — Madison using Wiley's online course in a flipped-classroom format.



 **Wiley's online course was developed with the student experience in mind.**

See how Paul uses four key elements to focus his course on developing his students' success.



Guided Learning

EXAMPLE:

Paul customizes his learning path to highlight and structure pre-assignments, post-assignments and discussions, adaptive practice, exam practice, and quizzing.

The **flexible, linear learning path** enables you to control what your students see, when they see it, and in what order. This makes it very clear for students to understand what they're supposed to complete. This is especially vital for online classes. **Having a clear path to learn reduces the risk of "losing" students, keeping them engaged and on track in your course.**



Information Retention

EXAMPLE:

Paul assigns Interactive Tutorials ahead of pre-lecture assignments so students come to class ready to actively participate.

Interactive Tutorials provide students with a self-paced lecture walkthrough of the chapters. Broken into small chunks, students must respond to integrated questions correctly or exhaust attempts before moving on, enhancing the retention of information. **Trying to solve a problem before being taught the solution is frustrating but improves retention.**

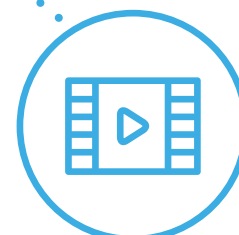


Continuous Practice

EXAMPLE:

Paul uses Adaptive Practice as a capstone activity at the end of each week to improve retention.

Adaptive Practice is a powerful learning tool that provides feedback, showing the areas students need to work on. **To improve learning, employ dynamic (adaptive) testing rather than static testing. Without feedback, students often overestimate their competence and don't see a need to try to improve.**



Just-in-Time Homework Help

EXAMPLE:

Paul assigns post-assignment problems supported by Solution Walkthrough Videos.

Solution Walkthrough Videos provide students with 24/7 just-in-time homework support and enable you to assign more difficult homework questions. **Longer, multi-learning objective problems with video support help students consolidate their understanding.**

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Accounting Course Design



Course Design Suggestions from *Make It Stick**

- ✓ Trying to solve a problem before being taught the solution improves retention.
- ✓ Testing (active retrieval) doesn't just measure learning, it strengthens memory.
- ✓ Spaced "testing" results in greater retention.
- ✓ Providing feedback strengthens testing more than testing alone.

**Make It Stick*; Brown, Roediger, and McDaniel, 2014.

Considerations for a Flipped Classroom

Based on Paul Kimmel's course with two in-person lectures per week.

EXAMPLE WEEKLY SCHEDULE

SUNDAY	Online	Complete first pre-assignment. Due Monday before class.
MONDAY	In Class	Students do at least two exercises in class on blank sheet (i.e., conditions faced in a test).
TUESDAY	Online	Complete second pre-assignment. Due Wednesday before class.
WEDNESDAY	In Class	Students do at least two exercises in class on blank sheet.
THURSDAY/FRIDAY	Online	Complete post-assignment. Due Friday night.
FRIDAY/SATURDAY	Online	Complete adaptive practice assignment.

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Account Classification and Presentation

Account Title	Classification	Financial Statement	Normal Balance
A			
Accounts Payable	Current Liability	Balance Sheet	Credit
Accounts Receivable	Current Asset	Balance Sheet	Debit
Accumulated Depreciation—Buildings	Plant Asset—Contra	Balance Sheet	Credit
Accumulated Depreciation—Equipment	Plant Asset—Contra	Balance Sheet	Credit
Administrative Expenses	Operating Expense	Income Statement	Debit
Advertising Expense	Operating Expense	Income Statement	Debit
Allowance for Doubtful Accounts	Current Asset—Contra	Balance Sheet	Credit
Amortization Expense	Operating Expense	Income Statement	Debit
B			
Bad Debt Expense	Operating Expense	Income Statement	Debit
Bonds Payable	Long-Term Liability	Balance Sheet	Credit
Buildings	Plant Asset	Balance Sheet	Debit
C			
Cash	Current Asset	Balance Sheet	Debit
Common Stock	Stockholders' Equity	Balance Sheet	Credit
Copyrights	Intangible Asset	Balance Sheet	Debit
Cost of Goods Sold	Cost of Goods Sold	Income Statement	Debit
D			
Debt Investments	Current Asset/Long-Term Investment	Balance Sheet	Debit
Depreciation Expense	Operating Expense	Income Statement	Debit
Discount on Bonds Payable	Long-Term Liability—Contra	Balance Sheet	Debit
Dividend Revenue	Other Income	Income Statement	Credit
Dividends	Temporary account closed to Retained Earnings	Retained Earnings Statement	Debit
Dividends Payable	Current Liability	Balance Sheet	Credit
E			
Equipment	Plant Asset	Balance Sheet	Debit
F			
Freight-Out	Operating Expense	Income Statement	Debit
G			
Gain on Disposal of Plant Assets	Other Income	Income Statement	Credit
Goodwill	Intangible Asset	Balance Sheet	Debit
I			
Income Summary	Temporary account closed to Retained Earnings	Not Applicable	(1)
Income Tax Expense	Income Tax Expense	Income Statement	Debit
Income Taxes Payable	Current Liability	Balance Sheet	Credit
Insurance Expense	Operating Expense	Income Statement	Debit
Interest Expense	Other Expense	Income Statement	Debit
Interest Payable	Current Liability	Balance Sheet	Credit
Interest Receivable	Current Asset	Balance Sheet	Debit
Interest Revenue	Other Income	Income Statement	Credit
Inventory	Current Asset	Balance Sheet (2)	Debit

(continued)

Account Classification and Presentation (continued)

Account Title	Classification	Financial Statement	Normal Balance
L			
Land	Plant Asset	Balance Sheet	Debit
Loss on Disposal of Plant Assets	Other Expense	Income Statement	Debit
M			
Maintenance and Repairs Expense	Operating Expense	Income Statement	Debit
Mortgage Payable	Long-Term Liability	Balance Sheet	Credit
N			
Notes Payable	Current Liability/ Long-Term Liability	Balance Sheet	Credit
P			
Patents	Intangible Asset	Balance Sheet	Debit
Paid-in Capital in Excess of Par— Common Stock	Stockholders' Equity	Balance Sheet	Credit
Paid-in Capital in Excess of Par— Preferred Stock	Stockholders' Equity	Balance Sheet	Credit
Preferred Stock	Stockholders' Equity	Balance Sheet	Credit
Premium on Bonds Payable	Long-Term Liability—Adjunct	Balance Sheet	Credit
Prepaid Insurance	Current Asset	Balance Sheet	Debit
Prepaid Rent	Current Asset	Balance Sheet	Debit
R			
Rent Expense	Operating Expense	Income Statement	Debit
Retained Earnings	Stockholders' Equity	Balance Sheet and Retained Earnings Statement	Credit
S			
Salaries and Wages Expense	Operating Expense	Income Statement	Debit
Salaries and Wages Payable	Current Liability	Balance Sheet	Credit
Sales Discounts	Revenue—Contra	Income Statement	Debit
Sales Returns and Allowances	Revenue—Contra	Income Statement	Debit
Sales Revenue	Revenue	Income Statement	Credit
Selling Expenses	Operating Expense	Income Statement	Debit
Service Revenue	Revenue	Income Statement	Credit
Short-Term Investments	Current Asset	Balance Sheet	Debit
Stock Investments	Current Asset/Long-Term Investment	Balance Sheet	Debit
Supplies	Current Asset	Balance Sheet	Debit
Supplies Expense	Operating Expense	Income Statement	Debit
T			
Treasury Stock	Stockholders' Equity	Balance Sheet	Debit
U			
Unearned Service Revenue	Current Liability	Balance Sheet	Credit
Utilities Expense	Operating Expense	Income Statement	Debit
(1) The normal balance for Income Summary will be credit when there is a net income, debit when there is a net loss. The Income Summary account does not appear on any financial statement.			
(2) If a periodic system is used, Inventory also appears on the income statement in the calculation of cost of goods sold.			

The following is a sample chart of accounts. It does not represent a comprehensive chart of all the accounts used in this text but rather those accounts that are commonly used. This sample chart of accounts is for a company that generates service revenue as well as sales revenue. It uses the perpetual approach to inventory. If a periodic system was used, the following temporary accounts would be needed to record inventory purchases: Purchases, Freight-In, Purchase Returns and Allowances, and Purchase Discounts.

Chart of Accounts

Assets	Liabilities	Stockholders' Equity	Revenues	Expenses
Cash	Notes Payable	Common Stock	Service Revenue	Administrative Expenses
Accounts Receivable	Accounts Payable	Paid-in Capital in Excess of Par—Common Stock	Sales Revenue	Amortization Expense
Allowance for Doubtful Accounts	Unearned Service Revenue	Preferred Stock	Sales Discounts	Bad Debt Expense
Interest Receivable	Salaries and Wages Payable	Paid-in Capital in Excess of Par—Preferred Stock	Sales Returns and Allowances	Cost of Goods Sold
Inventory	Interest Payable	Treasury Stock	Interest Revenue	Depreciation Expense
Supplies	Dividends Payable	Retained Earnings	Gain on Disposal of Plant Assets	Freight-Out
Prepaid Insurance	Income Taxes Payable	Dividends		Income Tax Expense
Prepaid Rent	Bonds Payable	Income Summary		Insurance Expense
Land	Discount on Bonds Payable			Interest Expense
Equipment	Premium on Bonds Payable			Loss on Disposal of Plant Assets
Accumulated Depreciation—Equipment	Mortgage Payable			Maintenance and Repairs Expense
Buildings				Rent Expense
Accumulated Depreciation—Buildings				Salaries and Wages Expense
Copyrights				Selling Expenses
Goodwill				Supplies Expense
Patents				Utilities Expense

Financial & Managerial Accounting

Fourth Edition

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for their love, support, and encouragement.

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Cases for Management Decision Making

From the Authors

Dear Student,

Why This Course? Remember your biology course in high school? Did you have one of those “invisible man” models (or maybe something more high-tech than that) that gave you the opportunity to look “inside” the human body? This accounting course offers something similar. To understand a business, you have to understand the financial insides of a business organization. An accounting course will help you understand the essential financial components of businesses. Whether you are looking at a large multinational company like **Apple** or **Starbucks** or a single-owner software consulting business or coffee shop, knowing the fundamentals of accounting will help you understand what is happening. As an employee, a manager, an investor, a business owner, or a director of your own personal finances—any of which roles you will have at some point in your life—you will make better decisions for having taken this course.

Why This Text? Your instructor has chosen this text for you because of the authors’ trusted reputation. The authors have worked hard to provide instructional material that is engaging, timely, and accurate.

How to Succeed? We’ve asked many students and many instructors whether there is a secret for success in this course. The nearly unanimous answer turns out to be not much of a secret: “Do the homework.” This is one course where doing is learning. The more time you spend on the homework assignments—using the various tools that this text provides—the more likely you are to learn the essential concepts, techniques, and methods of accounting.

Good luck in this course. We hope you enjoy the experience and that you put to good use throughout a lifetime of success the knowledge you obtain in this course. We are sure you will not be disappointed.

“Whether you are looking at a large multinational company like **Apple** or **Starbucks** or a single-owner software consulting business or coffee shop, knowing the fundamentals of accounting will help you understand what is happening.”

Jerry J. Weygandt
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CHAPTER 15A Job Order Costing (non-debit-and-credit approach)**CHAPTER 16A Process Costing (non-debit-and-credit-approach)****Cases for Management Decision Making**

New to This Edition: Data Analytics

The authors carefully considered how to thoughtfully and meaningfully integrate data analytics into the accounting course, and are pleased to provide the following data analytics resources.

Data Analytics in the Real World

Real-world examples that illustrate engaging situations in companies are provided throughout the text.

Data Analytics Insight The Walt Disney Company



Paulbr/Getty Images

Using Data in Its Own World

The Walt Disney Company makes fun seem effortless at its theme parks, but there is a magic mountain of data collection going on behind the scenes. For example, Disney employs behavioral analytics, which uses data to both predict and influence

customer behavior, in countless ways. Disney collects the data through its “MagicBands” worn by visitors to the parks. While the MagicBands provide visitors with many benefits (e.g., delivering customized itineraries, reducing wait lines, and providing customer recognition by Disney characters), these bands are also delivering continual information to the company about the locations, activities, eating habits, and purchases of Disney visitors.

Disney uses the MagicBand information to support daily adjustments of operations as well as long-term planning. For example, the company can use this information to monitor park usage and subsequently encourage visitors to change their itineraries to different activities that will require a shorter wait time. If customers are waiting in line, they aren’t happy—and they also aren’t spending money. Long-term planning uses of MagicBand information include designing new attractions and updating menu options in response to supply and demand.

Source: Randerson112358, “How Disney World Uses Big Data,” *medium.com* (May 18, 2019).

What is behavioral analytics, and how does Disney use it to minimize lines at its theme parks? (Answer is available at the end of the chapter.)

Data Analytics and Decision-Making

The text also provides numerous discussions on how managers are increasingly relying on data analytics to make decisions using accounting information.

Companies have never had so much available data. In many companies, virtually every aspect of operations—the employees, the customers, even the manufacturing equipment—leaves a data trail. However, while “big data” can be impressive, it can also be overwhelming.

- Having all the data in the world will not necessarily lead to better results.
- The trick is having the skills and know-how to use the data in ways that result in more productive (and happier) employees, more satisfied customers, and more profitable operations.

It is therefore not surprising that one of the most rapidly growing areas of business today is data analytics. **Data analytics** is the use of techniques, which often combine software and statistics, to analyze data to make informed decisions.

Throughout the remainder of this text, we continue to offer many examples of how successful companies are using data analytics. We also provide examples of one analytical tool, data visualizations. **Data visualizations** often help managers acquire a more intuitive understanding of (1) the relationships between variables and (2) business trends.

Data Analytics in Action

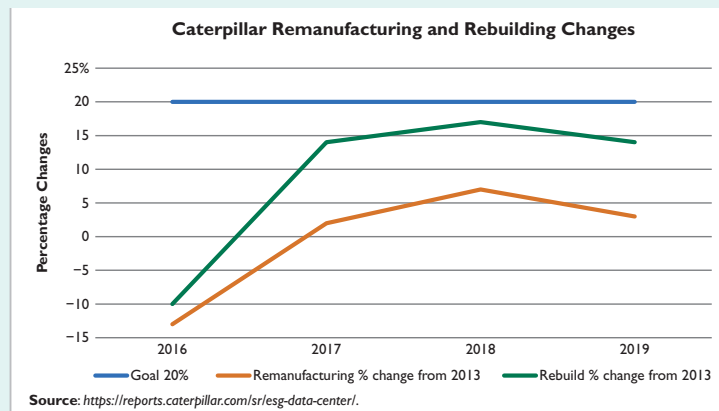
Most chapters offer *Data Analytics in Action* problems, to offer students the opportunity to see how they might use data analytics to help solve realistic business problems. Excel templates for each of the *Data Analytics in Action* problems provide students a framework for solving the problem. *Data Analytics in Excel* videos provide students with step-by-step guidance in performing the Excel skills they will need to solve these problems.

Using Data Visualization to Analyze Changes over Time

DA6.1 Data visualization can be used to analyze company changes over time.

Example: Recall the Feature Story “Where Is That Spare Bulldozer Blade?” presented in the chapter. **Caterpillar** continues to enhance its inventory management by improving its product sustainability in two ways. First, it is rebuilding used parts to like-new condition. Second, the company is remanufacturing usable inventory parts when customers trade-in or dispose of their used equipment. These actions not only reduce inventory costs but also enable Caterpillar to participate in the circular economy, where manufacturers take responsibility for their products at the end of the product lives. As noted in its 2019 sustainability report, Caterpillar has a goal of 20% growth in both rebuilding and remanufacturing from 2013 to 2020.

Has Caterpillar reached this goal? A line chart can help you visualize the company's progress over time. What information can you obtain by examining the following chart?



The chart indicates that while Caterpillar's goal has remained at 20%, the remanufacturing and rebuilding businesses are growing. The biggest increase in the growth of rebuilding occurred from 2016 to 2017. There was a decline from 2018 to 2019 in these initiatives as Caterpillar may have reached a peak that is leveling off due to new production that is more sustainable.

For this case, you will look more closely at specific Caterpillar data regarding its end-of-life returned materials and the percentage usable for recycling. You will create and analyze a combination column and line chart to determine how Caterpillar can increase its gross profit as it relates to these end-of-life materials.

Go to WileyPLUS for complete case details and instructions.

Using Data Analytics to Compare Companies' Profitability

DA6.2 Manufacturing construction equipment is a competitive business. For this case, you will use company data to calculate the gross profit ratio, as well as the percentages of cost of goods sold, other expenses, and net income as compared to revenue, for **Caterpillar**, **Cummins**, and **CNH Industrial**. You will then create and analyze a clustered column chart based on this data. Finally, you will compare the rebuilding and recycling efforts of the companies and what impact these initiatives might have on their profitability.

Go to WileyPLUS for complete case details and instructions.



Data Visualization Homework Assignments

PowerBI and Tableau visualizations accompanied by questions are available with most chapters. PowerBI and Tableau visualizations allow students to interpret visualizations and think critically about data.

Data Analytics Module

An **accounting-specific data analytics module** with interactive lessons, case studies, and videos is part of the Wiley online course. The module has been prepared using industry-validated content to help students develop the professional competencies needed for the changing workforce.

New to This Edition: Chapter-by-Chapter Changes

Chapter 1: Accounting in Action

- NEW introductory discussion of how financial statement users can use data analytics to improve decision-making.

Chapter 2: The Recording Process

- NEW Helpful Hints, to reinforce student understanding of key concepts.
- NEW Accounting Across the Organization box, on **Hain Celestial Group**'s failure to provide income information to users, which resulted in a significant drop in its stock price.
- Re-ordered example transactions so payment of dividends is last, which is more reflective of real-world practices.

Chapter 3: Adjusting the Accounts

- NEW discussion and illustration of the five-step revenue recognition process.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 4: Completing the Accounting Cycle

- Updated definition of worksheet to include its most common form, an electronic spreadsheet.
- Simplified illustration of the closing process for improved understanding.
- NEW end-of-chapter problems that review portions of the accounting cycle that are not worksheet-based.

Chapter 5: Accounting for Merchandising Operations

- NEW section on how companies use data analytics to improve business decision-making regarding their policies on credit sales, sales returns and allowances, and sales discounts.
- NEW Comprehensive Accounting Cycle Review for the perpetual inventory method.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 6: Inventories

- NEW DO IT!s at end of each cost flow method discussion, so students can immediately check their understanding of the FIFO, LIFO, and average-cost methods.
- NEW illustration showing **Walmart**'s recent inventory disclosure, using retail inventory method.

- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 7: Fraud, Internal Control, and Cash

- NEW section on how data analytics helps improve internal controls.
- NEW discussion of recent FASB on restricted cash presentation in the statement of cash flows.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 8: Accounting for Receivables

- NEW Feature Story on how **Nike** has increased its sales through its credit policies.
- NEW section on data analytics and receivables management.
- NEW discussion of FASB expected credit loss model, which requires that companies measure expected uncollectible accounts and record bad debt expense on all receivables, even those with a low risk of loss.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 9: Plant Assets, Natural Resources, and Intangible Assets

- NEW Feature Story on how equipment can determine financial success in the airline industry.
- NEW discussion and International Note on use of historical cost principle and cash equivalent price in determining the cost of plant assets.
- NEW DO IT!s at end of subsections of depreciation methods, so students can immediately test their understanding of how to calculate straight-line, declining-balance, and units-of-activity depreciation methods.
- NEW discussion and illustration on depreciation disclosure in the notes to the financial statements.

- Expanded discussion of how companies must disclose in the financial statements significant changes in depreciation estimates.
- Moved “Sale of Plant Assets” section before “Retirement of Plant Assets” section for more logical organization of topics.
- Expanded discussion of description of intangible assets and how to account for them.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 10: Liabilities

- NEW Feature Story on how debt has both helped and hurt **General Motors** and **Ford**.
- NEW discussion of leases and related EOC material.
- NEW discussion of bank line of credit disclosure.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 11: Corporations: Organization, Stock Transactions, and Stockholders’ Equity

- NEW discussion on hybrid forms of business organization.
- NEW discussion on how investors monitor a company’s dividend practices.
- NEW discussion on how payment of stock dividend can be viewed as merely a publicity gesture.
- NEW People, Planet, and Profit Insight box on the upward trend of shareholder proposals on corporate responsibility.
- NEW Investor Insight box, on how companies that pay dividends can increase investor wealth.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 12: Statement of Cash Flows

- Added more T-accounts and journal entries to increase understandability of preparing the statement of cash flows using the indirect method.
- Used **Apple** financial statements for example in how to analyze the statement of cash flows using free cash flow calculation, for increased student engagement.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.

- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 13: Financial Statement Analysis

- NEW presentation of discontinued operations on the income statement (previously on the statement of comprehensive income) as well as format of the statement of comprehensive income.
- NEW illustration showing the financial ratio classifications, for improved student understanding and engagement.
- Comprehensive example, as well as explanations of ratio calculations, now included in the chapter instead of an appendix.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 14: Managerial Accounting

- NEW section on the value of data analytics in helping managers understand the relationship between CVP variables and business trends.
- NEW Data Analytics Insight box on how **Disney** uses its MagicBands as a source of data to analyze the behavior of its customers.
- Expanded discussion within “Manufacturing Costs” section to ensure student understanding of raw materials versus direct materials as well as what is considered to be manufacturing overhead. Also updated Illustration 1.4 (assignment of costs to cost categories) to include an explanation for each cost classification, again to ensure student understanding.
- Moved up discussion of balance sheet (before income statement) in “Manufacturing Costs in Financial Statements” section for more logical presentation of topics.
- Updated each “Managerial Accounting Today” section subtopic for the latest information on service industries, lean manufacturing, balanced scorecard, ethics, and social responsibility.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 15: Job Order Costing

- NEW Data Analytics Insight box on how **Autodesk** uses data analytics to improve its software and profitability.
- More discussion on assigning raw materials costs and assigning factory labor costs, to improve student understanding.

- Updated time ticket discussion for more recent process involving scanning of employee identification codes.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.

Chapter 16: Process Costing

- Production cost report now has the “Cost Reconciliation Schedule” section to include costs to be accounted for, not just costs accounted for.
- Throughout, have carefully scrutinized discussion to ensure complete student understanding. For example, in the “Transfer to Next Department” section, have added explanation of what department transfers entail.

Chapter 17: Activity-Based Costing

- NEW data analytics discussion added to section of identifying cost drivers.
- NEW Data Analytics Insight box on how companies such as **GE** and **UPS** use data analytics to help reduce non-value-added activities.
- NEW section (“Assigning Nonmanufacturing Overhead Costs”) and income statement presentations, to help highlight differences between traditional costing and activity-based costing.

Chapter 18: Cost-Volume-Profit

- NEW discussion on CVP and the use of data analytics, using **DHL Express** as an example.
- NEW expanded highlighted equations, to show more detailed calculations for improved understanding.
- NEW expanded explanation of what CVP analysis is.
- NEW illustration and discussion on how a GAAP income statement differs from a CVP income statement.
- NEW discussion on the variable cost ratio.
- Updated Service Company Insight box to feature more recent information on the business of music promotion (and using Drake as an example instead of the Rolling Stones) and computing the break-even point.
- Enhanced end-of-chapter assignments by offering students more opportunities to prepare CVP income statements, as well as a new problem on regression analysis.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 19: Cost-Volume-Profit Analysis: Additional Issues

- NEW Data Analytics Insight box on how **Caesars Entertainment** uses data analytics to determine how to maximize profits from its customers.

- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.

Chapter 20: Incremental Analysis

- Highlighted the decision rules, as well as additional factors to consider, for incremental analysis decisions.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 21: Pricing

- NEW Data Analytics Insight box on how **Big Data Pricing** helps customers use data analytics to improve dynamic pricing practices.
- NEW Data Analytics in Action problem allows students to perform basic data analytics and data visualization.

Chapter 22: Budgetary Planning

- NEW Data Analytics Insight box on how **Dickey’s Barbecue Pit** uses data analytics to improve restaurant sales performance.
- NEW Data Analytics in Action problem allows students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 23: Budgetary Control and Responsibility Accounting

- NEW Data Analytics Insight boxes on rolling forecasts and zero-based budgeting.
- Updated section on “Judgmental Factors in ROI” with “Alternative Measures of ROI Inputs” for more precise discussion and improved student understanding.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 24: Standard Costs and Balanced Scorecard

- NEW Data Analytics Insight box on how manufacturing companies are using technology such as 5G cellular to improve the amount and speed of data collection to improve operations.
- NEW highlighted applications of determining standard costs in “A Case Study” section, for improved student understanding.
- NEW Data Analytics in Action problem allows students to perform basic data analytics and data visualization.
- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related

to accounting concepts. With accompanying multiple-choice and discussion questions.

Chapter 25: Planning for Capital Investments

- NEW Data Analytics Insight box on how **Electronic Arts** uses data from its current online video games to help it develop future products.
- Improved illustration showing computation of cash payback period by including detailed steps and computations.
- NEW Management Insight box on 5G and how it presents a risky investment to telecom companies.
- NEW Data Analytics in Action problems allow students to perform basic data analytics and data visualization.

- NEW business and markets news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts. With accompanying multiple-choice and discussion questions.

Appendix H: Investments

- NEW DO IT!s added to appendix discussion as well as end-of-chapter material.
- NEW Review and Practice section includes multiple-choice questions followed by annotated solutions, practice brief exercises with solutions, practice exercises with solutions, and a practice problem with solution.

Proven Pedagogical Features

When you think of accounting, you probably don't think of sports. So why do we have a photo of surfboards on our cover? It's because this image represents active learning that's best accomplished through full engagement, commitment, and practice. Through the integrated learning experience with the text and online course materials, *Financial & Managerial Accounting, Fourth Edition*, takes the same approach many coaches do, by helping students not only master key concepts first but understand why they're important. In this way, students appreciate the importance of accounting basics and develop a solid foundation of knowledge. This leads to better student retention and sets them up for success in future careers.

In this new edition, all content has been carefully reviewed and revised to ensure maximum student understanding. At the same time, the time-tested features that have proven to be of most help to students have been retained, such as the following.

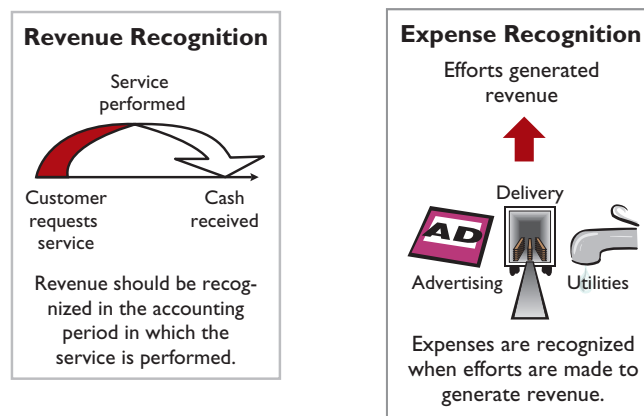
Financial Statement Transaction Illustrations

Throughout the text, carefully crafted illustrations demonstrate the analysis of business transactions. Each illustration clearly walks the student through the process of (1) basic analysis, (2) equation analysis, and (3) debit-credit analysis, as well as shows the (4) general journal entry and (5) general ledger posting.

Basic Analysis	The asset Accounts Receivable is increased \$200; the revenue Service Revenue is increased \$200.																																			
Equation Analysis	$ \begin{array}{rcl} \text{Assets} & = & \text{Liabilities} + \text{Stockholders' Equity} \\ \hline \text{Accounts Receivable} & & \text{Service Revenue} \\ + \$200 & & + \$200 \end{array} $																																			
Debit–Credit Analysis	<div>Debits increase assets: debit Accounts Receivable \$200.</div> <div>Credits increase revenues: credit Service Revenue \$200.</div>																																			
Journal Entry	<table> <tr> <td>Oct. 31</td><td>Accounts Receivable Service Revenue (To record revenue for services performed)</td><td>112 400</td><td>200</td><td></td><td>200</td></tr> </table>						Oct. 31	Accounts Receivable Service Revenue (To record revenue for services performed)	112 400	200		200																								
Oct. 31	Accounts Receivable Service Revenue (To record revenue for services performed)	112 400	200		200																															
Post to Ledger	<table> <tr> <th colspan="2">Accounts Receivable</th><th>112</th><th colspan="2">Service Revenue</th><th>400</th></tr> <tr> <td>Oct. 31</td><td>Adj. 200</td><td></td><td>Oct. 31</td><td></td><td>10,000</td></tr> <tr> <td></td><td></td><td></td><td>31</td><td></td><td>400</td></tr> <tr> <td></td><td></td><td></td><td>31</td><td>Adj. 200</td><td></td></tr> <tr> <td>Oct. 31</td><td>Bal. 200</td><td></td><td>Oct. 31</td><td>Bal. 10,600</td><td></td></tr> </table>						Accounts Receivable		112	Service Revenue		400	Oct. 31	Adj. 200		Oct. 31		10,000				31		400				31	Adj. 200		Oct. 31	Bal. 200		Oct. 31	Bal. 10,600	
Accounts Receivable		112	Service Revenue		400																															
Oct. 31	Adj. 200		Oct. 31		10,000																															
			31		400																															
			31	Adj. 200																																
Oct. 31	Bal. 200		Oct. 31	Bal. 10,600																																

Infographic Learning

Over half of the text is visual, providing students alternative ways of learning about accounting.



Real-World Decision-Making

Real-world examples, which illustrate engaging situations in companies, are provided throughout the text. Answers to the critical thinking questions are now available at the end of each chapter.

People, Planet, and Profit Insight **BrightFarms**



Agatha Koroglu/
Shutterstock.com

Gardens in the Sky

The United Nations' Food and Agriculture Organization estimates that by 2050, roughly 70% of people will live in cities. This means that more food will need to be hauled farther to get it to the consumer. To address the lack of farmable land and reduce the cost of transporting produce, some companies, such as New York-based **BrightFarms**, are building urban greenhouses. BrightFarms' mission is "to grow food in the same communities where it's consumed."

In doing so, the company says it uses 80% less water, 90% less land, and 95% less shipping fuel than long-distance, field-grown produce.

This sounds great, but do the numbers work? Some variable costs are reduced. For example, the use of pesticides, herbicides, fuel costs for shipping, and water are all reduced.

Soil erosion is a non-issue since plants are grown hydroponically (in a solution of water and minerals), and land requirements are reduced because of vertical structures. But, some fixed costs are higher. First, there is the cost of the building. Also, multistory buildings require artificial lighting for plants on lower floors.

Rooftop greenhouses on existing city structures already appear financially viable. For example, a 15,000 square-foot rooftop greenhouse in Brooklyn already produces roughly 30 tons of vegetables per year for local residents.

Sources: "Vertical Farming: Does It Really Stack Up?" *The Economist* (December 9, 2010); Jane Black, "BrightFarms Idea: Greenhouses That Cut Short the Path from Plant to Grocery Shelf," *The Washington Post* (May 7, 2013); and *BrightFarms.com* (2019).

What are some of the variable and fixed costs that are impacted by hydroponic farming? (Answer is available at the end of the chapter.)

DO IT! Exercises

DO IT! Exercises in the body of the text prompt students to stop and review key concepts. They outline the Action Plan necessary to complete the exercise as well as show a detailed solution.

DO IT! 3 | Adjusting Entries for Accruals

Micro Computer Services Inc. began operations on August 1, 2022. At the end of August 2022, management prepares monthly financial statements. The following information relates to August.

- At August 31, the company owed its employees \$800 in salaries and wages that will be paid on September 1.
- On August 1, the company borrowed \$30,000 from a local bank on a 1-year note payable. The annual interest rate is 10%. Interest will be paid with the note at maturity.
- Revenue for services performed but unrecorded for August totaled \$1,100.

Prepare the adjusting entries needed at August 31, 2022.

Solution

1. Salaries and Wages Expense	800	
Salaries and Wages Payable		800
(To record accrued salaries)		
2. Interest Expense	250	
Interest Payable		250
(To record accrued interest: \$30,000 × 10% × $\frac{1}{12}$ = \$250)		
3. Accounts Receivable	1,100	
Service Revenue		1,100
(To record revenue for services performed)		

Related exercise material: BE3.10, BE3.11, BE3.12, DO IT! 3.3, E3.5, E3.6, E3.7, E3.8, E3.9, E3.10, E3.11, E3.12, E3.13, E3.14, E3.15, E3.17, E3.18, E3.19, and E3.20.

ACTION PLAN

- Make adjusting entries at the end of the period to recognize revenues for services performed and for expenses incurred.
- Don't forget to make adjusting entries for accruals. Adjusting entries for accruals will increase both a balance sheet and an income statement account.

Review and Practice

Each chapter concludes with a Review and Practice section which includes a review of learning objectives, key terms glossary, practice multiple-choice questions with annotated solutions, practice brief exercises with solutions, practice exercises with solutions, and a practice problem with a solution.

Review and Practice

Practice Brief Exercises

2. **(LO 2)** At the end of its first year, the trial balance of Denton Company shows Equipment of \$40,000 and zero balances in Accumulated Depreciation—Equipment and Depreciation Expense. Depreciation for the year is estimated to be \$8,000. Prepare the adjusting entry for depreciation at December 31, post the adjustments to T-accounts, and indicate the balance sheet presentation of the equipment at December 31.

Prepare adjusting entry for depreciation.

Solution

2.	Dec. 31	Depreciation Expense	8,000	
		Accumulated Depreciation—Equipment		8,000
		Depreciation Expense	Accum. Depreciation—Equipment	
	12/31	8,000	12/31	8,000

Balance Sheet:

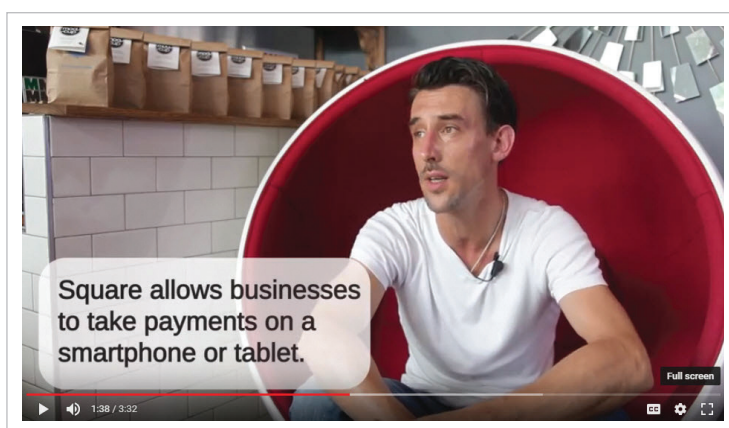
Equipment	\$40,000	
Less: Accumulated Depreciation—Equipment	<u>8,000</u>	\$32,000

Engaging Digital Tools

Digital study tools in Wiley's online course include the following.

Real-World Company Videos

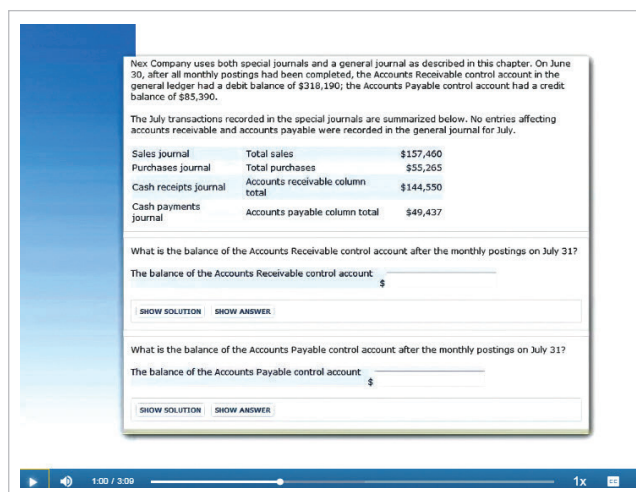
Real-world company videos feature both small businesses and larger companies to help students apply content and see how business owners apply concepts from the text in the real world. New to this edition are news videos from **Bloomberg** that reference real-world news and decision-making related to accounting concepts, with accompanying multiple-choice and discussion questions.



Source: YouTube.

Solution Walkthrough Videos

Solution Walkthrough Videos are available as question assistance and to help students develop problem-solving techniques. These videos walk students through solutions step-by-step and are based on the most regularly assigned exercises and problems in the text.



Nex Company uses both special journals and a general journal as described in this chapter. On June 30, after all monthly postings had been completed, the Accounts Receivable control account in the general ledger had a debit balance of \$318,190; the Accounts Payable control account had a credit balance of \$85,390.

The July transactions recorded in the special journals are summarized below. No entries affecting accounts receivable and accounts payable were recorded in the general journal for July.

Sales journal	Total sales	\$157,400
Purchases journal	Total purchases	\$55,265
Cash receipts journal	Accounts receivable column total	\$144,550
Cash payments journal	Accounts payable column total	\$49,437

What is the balance of the Accounts Receivable control account after the monthly postings on July 31?

The balance of the Accounts Receivable control account: \$

SHOW SOLUTION SHOW ANSWER

What is the balance of the Accounts Payable control account after the monthly postings on July 31?

The balance of the Accounts Payable control account: \$

SHOW SOLUTION SHOW ANSWER

Source: YouTube.

Interactive Tutorials

Interactive tutorials are voice-guided reviews of topics in each learning objective. Check-points in the tutorials require students to review and solve simple self-assessment exercises.

Learning Objectives

- Explain the accrual basis of accounting and the reasons for adjusting entries.
- Fiscal and Calendar Years
- Accrual- vs. Cash-Basis Accounting
- Recognizing Revenues and Expenses
- Need for Adjusting Entries

← CLASSIFICATION AS ACCRUAL OR DEFERRAL
Classify each transaction as a deferral or accrual

Revenues for services performed but not yet received in cash.

Expenses paid in cash before they are used or consumed.

Cash received before services are performed.

Expenses incurred but not yet paid in cash or recorded.

3.1 3.2 3.3 3.4 13 of 45

Gradable Excel Questions

Gradable Excel questions for each chapter provide students an opportunity to practice Excel skills in the context of solving accounting problems.

	A	B	C	D	E	F	G	H	I	J	K
1	Function: IF; Formula: Subtract, Multiply; Cell Referencing										
2											
3	Brief Exercise - Using Excel to Determine Variances					Student Work Area					
4	PROBLEM					Required: Provide input into cells shaded in yellow in this template. Use cell references to the Problem area with mathematical formulas in the input cells. In the last input field, input an IF function with cell references to your work area.					
5	In October, Pine Company was determining its overhead variance. Its predetermined overhead rate is based on direct labor hours. The following										
6											
7											
8	Manufacturing overhead costs incurred		\$ 118,000								
9	Actual direct labor hours		21,000								
10	Standard hours allowed for work done		20,600								
11	Predetermined overhead rate		\$ 6.00								
12											
13	Compute the amount of the total overhead variance and designate if the variance is favorable or unfavorable using Excel's IF function.										
14											
15											
						Actual overhead					
						Overhead applied					
						Total overhead variance					
						Nature of variance					
										Answer Field 15.4% of your score. Formula: Multiply; Cell reference. Use a mathematical formula and cell referencing to the Problem area to determine the overhead applied.	

Data Visualization Homework Assignments

PowerBI and Tableau visualizations accompanied by questions are available with most chapters. PowerBI and Tableau visualizations allow students to interpret visualizations and think critically about data.

In addition, other learning opportunities in Wiley's online course include the following.

- **Accounting-Specific Data Analytics Module** offers interactive lessons, case studies, and videos. The module has been prepared using industry-validated content to help students develop the professional competencies needed for the changing workforce.
- **Cookie Creations** is a continuing case that spans across the financial accounting chapters and shows how a small business grows.
- **Waterways Corporation** is a continuing case that spans across the managerial accounting chapters and offers students the opportunity to see how a small business might use managerial accounting to operate effectively.

- **Wiley Accounting Updates** (wileyaccountingupdates.com) provide faculty and students with weekly curated news articles and suggested discussion questions.
- **Flashcards and Crossword Puzzles** help students study and master basic vocabulary and concepts.
- **Student Practice** quickly and effectively assesses student understanding of the material they have just covered.
- **Adaptive Practice** helps students quickly understand what they know and what they do not know, and provides opportunities for practice to effectively prepare for class or quizzes and exams.

Acknowledgments

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We will appreciate suggestions and comments from users—instructors and students alike. You can send your thoughts and ideas about the text to us via email at: AccountingAuthors@yahoo.com.

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CHAPTER 1



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Accounting in Action

The **Chapter Preview** describes the purpose of the chapter and highlights major topics.

Chapter Preview

The following Feature Story about **Columbia Sportswear Company** highlights the importance of having good financial information and knowing how to use it to make effective business decisions. Whatever your pursuits or occupation, the need for financial information is inescapable. You cannot earn a living, spend money, buy on credit, make an investment, or pay taxes without receiving, using, or dispensing financial information. Good decision-making depends on good information. The purpose of this chapter is to show you that accounting is the system used to provide useful financial information.

The **Feature Story** helps you picture how the chapter topic relates to the real world of accounting and business.

Feature Story

Knowing the Numbers

Many students who take this course do not plan to be accountants. If you are in that group, you might be thinking, “If I’m not going to be an accountant, why do I need

to know accounting?” Well, consider this quote from Harold Geneen, the former chairman of **IT&T**: “To be good at your business, you have to know the numbers—cold.” In business, accounting and financial statements are the means for communicating the numbers. If you don’t know how to read financial statements, you can’t really know your business.

1-1

Knowing the numbers is sometimes even a matter of corporate survival. Consider the story of **Columbia Sportswear Company**, headquartered in Portland, Oregon. Gert Boyle's family fled Nazi Germany when she was 13 years old and then purchased a small hat company in Oregon, Columbia Hat Company. In 1971, Gert's husband, who was then running the company, died suddenly of a heart attack. Gert took over the small, struggling company with help from her son Tim, who was then a senior at the University of Oregon. Somehow, they kept the company afloat. Today, Columbia has more than 4,000 employees and annual sales in excess of \$1 billion. Its brands include Columbia, Mountain Hardwear, Sorel, and Montrail.

Columbia doesn't just focus on financial success. Several of its factories have participated in a project to increase health

awareness of female factory workers in developing countries. Columbia is also a founding member of the Sustainable Apparel Coalition, which strives to reduce the environmental and social impact of the apparel industry. In addition, the company monitors all of the independent factories that produce its products to ensure that they comply with the company's Standards of Manufacturing Practices. These standards address such issues as forced labor, child labor, harassment, wages and benefits, health and safety, and the environment.

Employers such as Columbia Sportswear generally assume that managers in all areas of the company are "financially literate." To help prepare you for that, this text will help you learn how to read and prepare financial statements, and how to use key tools to evaluate financial results using basic data analytics.

The **Chapter Outline** presents the chapter's topics and subtopics, as well as practice opportunities.

Chapter Outline

LEARNING OBJECTIVES

REVIEW

PRACTICE

LO 1 Identify the activities and users associated with accounting.	<ul style="list-style-type: none"> • Three activities • Who uses accounting data 	DO IT! 1 Basic Concepts
LO 2 Explain the building blocks of accounting: ethics, principles, and assumptions.	<ul style="list-style-type: none"> • Ethics • GAAP • Measurement principles • Assumptions 	DO IT! 2 Building Blocks of Accounting
LO 3 State the accounting equation, and define its components.	<ul style="list-style-type: none"> • Assets • Liabilities • Stockholders' equity 	DO IT! 3 Stockholders' Equity Effects
LO 4 Analyze the effects of business transactions on the accounting equation.	<ul style="list-style-type: none"> • Accounting transactions • Transaction analysis • Summary of transactions 	DO IT! 4 Tabular Analysis
LO 5 Describe the four financial statements and how they are prepared.	<ul style="list-style-type: none"> • Income statement • Retained earnings statement • Balance sheet • Statement of cash flows 	DO IT! 5 Financial Statement Items
<p>Go to the Review and Practice section at the end of the chapter for a review of key concepts and practice applications with solutions.</p> <p>Visit WileyPLUS for additional tutorials and practice opportunities.</p>		

Accounting Activities and Users

LEARNING OBJECTIVE 1

Identify the activities and users associated with accounting.

What consistently ranks as one of the top career opportunities in business? What frequently rates among the most popular majors on campus? What was the undergraduate degree chosen by **Nike** founder Phil Knight, **Home Depot** co-founder Arthur Blank, former acting director of the **Federal Bureau of Investigation (FBI)** Thomas Pickard, and numerous members of Congress? Accounting.¹ Why did these people choose accounting? They wanted to understand what was happening financially to their organizations. Accounting is the financial information system that provides these insights. In short, to understand your organization, you have to know the numbers.

Accounting consists of three basic activities—it **identifies, records, and communicates** the economic events of an organization to interested users. Let's take a closer look at these three activities.

Essential terms are printed in blue when they first appear, and are defined in the end-of-chapter **Glossary Review**.

Three Activities

As a starting point to the accounting process, a company **identifies the economic events relevant to its business**. Examples of economic events are the sale of snack chips by **PepsiCo**, the provision of telephone services by **AT&T**, and the payment of wages by **Facebook**.

Once a company like PepsiCo identifies economic events, it **records** those events in order to provide a history of its financial activities. Recording consists of keeping a **systematic, chronological diary of events**, measured in dollars and cents. In recording, PepsiCo also classifies and summarizes economic events.

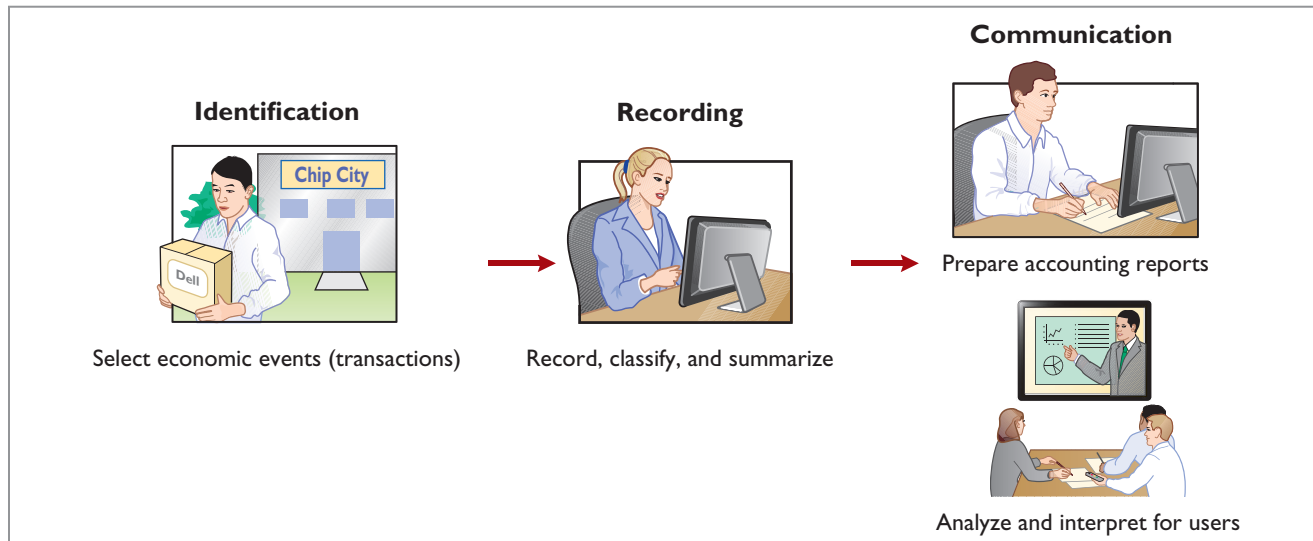
Finally, PepsiCo **communicates** the collected information to interested users by means of **accounting reports**. The most common of these reports are called **financial statements**. To make the reported financial information meaningful, PepsiCo reports the recorded data in a standardized way. It accumulates information resulting from similar transactions. For example, PepsiCo accumulates all sales transactions over a certain period of time and reports the data as one amount in the company's financial statements. Such data are said to be reported **in the aggregate**. By presenting the recorded data in the aggregate, the accounting process simplifies a multitude of transactions and makes a series of activities understandable and meaningful.

A vital element in communicating economic events is the accountant's ability to **analyze and interpret** the reported information. Analysis involves use of ratios, percentages, graphs, and charts to highlight significant financial trends and relationships. Interpretation involves **explaining the uses, meaning, and limitations of reported data**. Appendices A–E show the financial statements of **Apple Inc.**, **PepsiCo, Inc.**, **The Coca-Cola Company**, **Amazon.com, Inc.**, and **Walmart Inc.**, respectively. (In addition, in the *A Look at IFRS* section at the end of each chapter, the French company **LVMH—Louis Vuitton** is analyzed.) We refer to these statements at various places throughout the text. At this point, these financial statements probably strike you as complex and confusing. By the end of this course, you'll be surprised at your ability to understand, analyze, and interpret them.

¹The appendix to this chapter describes job opportunities for accounting majors and explains why accounting is such a popular major.

Illustration 1.1 summarizes the activities of the accounting process.

ILLUSTRATION 1.1 The activities of the accounting process



You should understand that the accounting process **includes** the bookkeeping function. **Bookkeeping** usually involves **only** the recording of economic events. It is therefore just one part of the accounting process. In total, accounting involves **the entire process of identifying, recording, and communicating economic events**.²

HELPFUL HINT

Throughout this text, we will highlight examples where accounting information is used to support business decisions using data analytics.

Helpful Hints further clarify concepts being discussed.

Who Uses Accounting Data

Accounting software systems collect vast amounts of data about the economic events experienced by a company and about the parties with whom the company engages, such as suppliers and customers. Business decision-makers take advantage of this wealth of data by using data analytics to make more informed business decisions. **Data analytics** involves analyzing data, often employing both software and statistics, to draw inferences. As both data access and analytical software improve, the use of data analytics to support decisions is becoming increasingly common at virtually all types of companies (see **Helpful Hint**).

Users of accounting information can be divided broadly into two groups: internal users and external users.

Internal Users

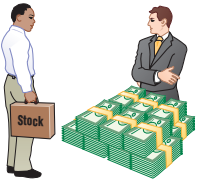


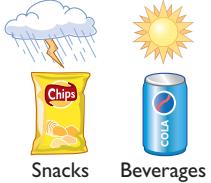
Internal users of accounting information are the managers who plan, organize, and run a business. These include **marketing managers, production supervisors, finance directors, and company officers**. In running a business, internal users must answer many important questions, as shown in **Illustration 1.2**.

To answer these and other questions, internal users need detailed information on a timely basis. **Managerial accounting** provides internal reports to help users make decisions about their companies. Examples are financial comparisons of operating alternatives, projections of income from new sales campaigns, and forecasts of cash needs for the next year.

²The origins of accounting are generally attributed to the work of Luca Pacioli, an Italian Renaissance mathematician. Pacioli was a close friend and tutor to Leonardo da Vinci and a contemporary of Christopher Columbus. In his 1494 text *Summa de Arithmetica, Geometria, Proportione et Proportionalite*, Pacioli described a system to ensure that financial information was recorded efficiently and accurately.

ILLUSTRATION 1.2 Questions that internal users ask

Questions Asked by Internal Users

 <p>Finance</p> <p>Is cash sufficient to pay dividends to Microsoft stockholders?</p>	 <p>Marketing</p> <p>What price should Apple charge for an iPhone to maximize the company's net income?</p>	 <p>Human Resources</p> <p>Can General Motors afford to give its employees pay raises this year?</p>	 <p>Snacks Beverages</p> <p>Management</p> <p>Which PepsiCo product line is the most profitable? Should any product lines be eliminated?</p>
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Accounting Across the Organization boxes demonstrate applications of accounting information in various business functions.

Accounting Across the Organization Clif Bar & Company



iStock.com/Dan Moore

Owning a Piece of the Bar

The original Clif Bar® energy bar was created in 1990 after six months of experimentation by Gary Erickson and his mother in her kitchen. Today, the company has approximately 1,000 employees and was named one of the leading Landor's Breakaway Brands®. One of **Clif Bar & Company's** proudest moments was the creation of an employee stock

ownership plan (ESOP) in 2010. This plan gives its employees 20% ownership of the company. The ESOP also resulted in Clif Bar enacting an open-book management program, including the commitment to educate all employee-owners about its finances. Armed with basic accounting knowledge, employees are more aware of the financial impact of their actions, which leads to better decisions.


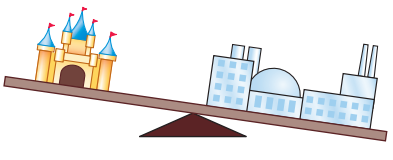

What are the benefits to the company and to the employees of making the financial statements available to all employees? (Answer is available near the end of the chapter.)

External Users

External users are individuals and organizations outside a company who want financial information about the company. The two most common types of external users are investors and creditors. **Investors** (owners) use accounting information to decide whether to buy, hold, or sell ownership shares of a company. **Creditors** (such as suppliers and bankers) use accounting information to evaluate the risks of granting credit or lending money. **Illustration 1.3** shows some questions that investors and creditors may ask.

ILLUSTRATION 1.3 Questions that external users ask

Questions Asked by External Users

 <p>Investors</p> <p>Is General Electric earning satisfactory income?</p>	 <p>Investors</p> <p>How does Disney compare in size and profitability with WarnerMedia?</p>	 <p>Creditors</p> <p>Will United Airlines be able to pay its debts as they come due?</p>
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Financial accounting answers these questions. It provides economic and financial information for investors, creditors, and other external users. The information needs of external users vary considerably. **Taxing authorities**, such as the Internal Revenue Service, want to know whether the company complies with tax laws. **Customers** are interested in whether a company like **Tesla, Inc.** will continue to honor product warranties and support its product lines. **Labor unions**, such as the **Major League Baseball Players Association**, want to know whether the owners have the ability to pay increased wages and benefits.

Regulatory agencies, such as the Securities and Exchange Commission or the Federal Trade Commission, want to know whether the company is operating within prescribed rules.

ACTION PLAN

- Review the basic concepts discussed.
- Develop an understanding of the key terms used.

The **DO IT!** exercises ask you to put newly acquired knowledge to work. They outline the **Action Plan** necessary to complete the exercise, and they show a **Solution**.

DO IT! 1 | Basic Concepts

Indicate whether each of the five statements presented below is true or false. If false, indicate how to correct the statement.

1. The three steps in the accounting process are identification, recording, and communication.
2. Bookkeeping encompasses all steps in the accounting process.
3. Accountants prepare, but do not interpret, financial reports.
4. The two most common types of external users are investors and company officers.
5. Managerial accounting activities focus on reports for internal users.

Solution

1. True. 2. False. Bookkeeping involves only the recording step. 3. False. Accountants analyze and interpret information in reports as part of the communication step. 4. False. The two most common types of external users are investors and creditors. 5. True.

Related exercise material: **DO IT! 1.1, E1.1, and E1.2.**

The Building Blocks of Accounting

LEARNING OBJECTIVE 2

Explain the building blocks of accounting: ethics, principles, and assumptions.

A doctor follows certain protocols in treating a patient's illness. An architect follows certain structural guidelines in designing a building. Similarly, an accountant follows certain standards in reporting financial information. These standards are based on specific principles and assumptions. For these standards to work, however, a fundamental business concept must be present—ethical behavior.

Ethics in Financial Reporting

People won't gamble in a casino if they think it is "rigged." Similarly, people won't play the stock market if they think share prices are rigged. At one time, the financial press was full of articles about financial scandals at **Enron**, **WorldCom**, **HealthSouth**, and **AIG**. As more scandals came to light, a mistrust of financial reporting in general seemed to be developing.

One article in the *Wall Street Journal* noted that "repeated disclosures about questionable accounting practices have bruised investors' faith in the reliability of earnings reports, which in turn has sent stock prices tumbling." Imagine trying to carry on a business or invest money if you could not depend on the financial statements to be honestly prepared. Information would have no credibility. There is no doubt that a sound, well-functioning economy depends on accurate and dependable financial reporting.

United States regulators and lawmakers were very concerned that the economy would suffer if investors lost confidence in corporate accounting because of unethical financial reporting. In response, Congress passed the **Sarbanes-Oxley Act (SOX)** to reduce unethical corporate behavior and decrease the likelihood of future corporate scandals. As a result of SOX, top management must now certify the accuracy of financial information. In addition,

penalties for fraudulent financial activity are much more severe. Also, SOX increased the independence requirements of the outside auditors who review the accuracy of corporate financial statements and increased the oversight role of boards of directors (see **Ethics Note**).

The standards of conduct by which actions are judged as right or wrong, honest or dishonest, fair or not fair, are **ethics**. Effective financial reporting depends on sound ethical behavior. To sensitize you to ethical situations in business and to give you practice at solving ethical dilemmas, we address ethics in a number of ways in this text:

1. A number of the *Feature Stories* and other parts of the text discuss the central importance of ethical behavior to financial reporting.
2. *Ethics Insight* boxes and marginal *Ethics Notes* highlight ethics situations and issues in actual business settings.
3. Many of the *People, Planet, and Profit Insight* boxes focus on ethical issues that companies face in measuring and reporting social and environmental issues.
4. At the end of the chapter, an *Ethics Case* simulates a business situation and asks you to put yourself in the position of a decision-maker in that case.

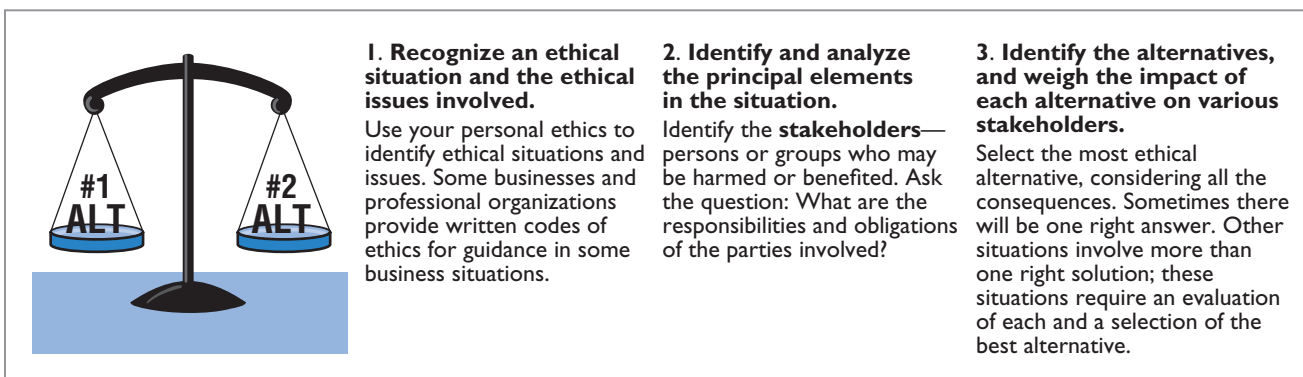
When analyzing these various ethics cases and your own ethical experiences, you should apply the three steps outlined in **Illustration 1.4**.

Ethics Notes help sensitize you to some of the ethical issues in accounting.

ETHICS NOTE

Circus-founder P.T. Barnum is alleged to have said, “Trust everyone, but cut the deck.” What Sarbanes-Oxley does is to provide measures (like cutting the deck of playing cards) that help ensure that fraud will not occur.

ILLUSTRATION 1.4 Steps in analyzing ethics cases and situations



Insight boxes provide examples of business situations from various perspectives—ethics, investor, international, and corporate social responsibility. Guideline answers to the critical thinking questions as well as additional questions are available in WileyPLUS.

Ethics Insight Dewey & LeBoeuf LLP



Alliance Images/
Shutterstock.com

I Felt the Pressure—Would You?

“I felt the pressure.” That’s what some of the employees of the now-defunct law firm of **Dewey & LeBoeuf LLP** indicated when they helped to overstate revenue and use accounting tricks to hide losses and cover up cash shortages. These employees worked for the former finance director and former chief financial officer (CFO) of the firm. Here are some of their comments:

- “I was instructed by the CFO to create invoices, knowing they would not be sent to clients. When I created these invoices, I knew that it was inappropriate.”
- “I intentionally gave the auditors incorrect information in the course of the audit.”

What happened here is that a small group of lower-level employees over a period of years carried out the instructions of their bosses. Their bosses, however, seemed to have no concern about unethical practices as evidenced by various e-mails with one another in which they referred to their financial manipulations as accounting tricks, cooking the books, and fake income.

Sources: Ashby Jones, “Guilty Pleas of Dewey Staff Detail the Alleged Fraud,” *Wall Street Journal* (March 28, 2014); and Sara Randazzo, “Dewey CFO Escapes Jail Time in Fraud Case Sentencing,” *Wall Street Journal* (October 10, 2017).

Why did these employees lie, and what do you believe should be their penalty for these lies? (Answer is available near the end of the chapter.)

Generally Accepted Accounting Principles

International Note

Over 115 countries use international standards (called IFRS). For example, all companies in the European Union follow IFRS. The differences between U.S. and international standards are not generally significant.

International Notes highlight differences between U.S. and international accounting standards.

The accounting profession has developed standards that are generally accepted and universally practiced. This common set of standards is called **generally accepted accounting principles (GAAP)**. These standards indicate how to report economic events.

The primary accounting standard-setting body in the United States is the **Financial Accounting Standards Board (FASB)**. The **Securities and Exchange Commission (SEC)** is the agency of the U.S. government that oversees U.S. financial markets and accounting standard-setting bodies. The SEC relies on the FASB to develop accounting standards, which public companies must follow. Many countries outside of the United States have adopted the accounting standards issued by the **International Accounting Standards Board (IASB)**. These standards are called **International Financial Reporting Standards (IFRS)** (see **International Note**).

As markets become more global, it is often desirable to compare the results of companies from different countries that report using different accounting standards. In order to increase comparability, the two standard-setting bodies have made efforts to reduce the differences between U.S. GAAP and IFRS. However, it seems likely that there will continue to be two sets of financial reporting standards in the world for the foreseeable future due to both the FASB and the IASB taking different approaches to various financial reporting issues. We highlight any major differences between GAAP and IFRS in *International Notes* as part of the text discussion as well as provide a more in-depth analysis in the *A Look at IFRS* section at the end of each chapter.

International Insight



Toru Hanai/Pool/Getty Images

The Korean Discount

If you think that accounting standards don't matter, consider recent events in South Korea. For many years, international investors complained that the financial reports of South Korean companies were inadequate and inaccurate. Accounting practices there often resulted in huge differences between stated revenues and actual revenues. Because investors did not have faith in the accuracy of the numbers, they were unwilling to pay as much for the shares of these companies relative to shares of comparable companies in different countries. This difference in share price was often referred to as the "Korean discount."

In response, Korean regulators decided that companies would have to comply with international accounting standards.

This change was motivated by a desire to "make the country's businesses more transparent" in order to build investor confidence and spur economic growth. Many other Asian countries, including China, India, and Japan, have also decided either to adopt international standards or to create standards that are based on the international standards.

Source: Evan Ramstad, "End to 'Korea Discount'?" *Wall Street Journal* (March 16, 2007).

What is meant by the phrase "make the country's businesses more transparent"? Why would increasing transparency spur economic growth? (Answer is available near the end of the chapter.)

HELPFUL HINT

Relevance and faithful representation are two primary qualities that make accounting information useful for decision-making.

Measurement Principles

GAAP generally uses one of two measurement principles, the historical cost principle or the fair value principle. Selection of which principle to follow generally relates to trade-offs between relevance and faithful representation (see **Helpful Hint**). **Relevance** means that financial information is capable of making a difference in a decision. **Faithful representation** means that the numbers and descriptions match what really existed or happened—they are factual.

Historical Cost Principle

The **historical cost principle** (or cost principle) dictates that companies record assets at their cost. This is true not only at the time the asset is purchased but also over the time the asset is held. For example, if **Best Buy** purchases land for \$360,000, the company initially reports it in its accounting records at \$360,000. But what does Best Buy do if, by the end of the next year, the fair value of the land has increased to \$400,000? Under the historical cost principle, it continues to report the land at \$360,000.

Fair Value Principle

The **fair value principle** states that assets and liabilities should be reported at fair value (the price received to sell an asset or settle a liability). Fair value information may be more useful than historical cost for certain types of assets and liabilities. For example, certain investment securities are reported at fair value because market price information is usually readily available for these types of assets.

In determining which measurement principle to use, companies weigh the factual nature of cost figures versus the relevance of fair value. In general, most companies choose to use cost. Only in situations where assets are actively traded, such as investment securities, do companies apply the fair value principle extensively.

Assumptions

Assumptions provide a foundation for the accounting process. Two main assumptions are the **monetary unit assumption** and the **economic entity assumption**.

Monetary Unit Assumption

The **monetary unit assumption** requires that companies include in the accounting records only transaction data that can be expressed in money terms. This assumption enables accounting to quantify (measure) economic events. The monetary unit assumption is vital to applying the historical cost principle.

This assumption prevents the inclusion of some relevant information in the accounting records. For example, the health of a company's owner, the quality of service, and the morale of employees are not included. The reason: Companies cannot quantify this information in monetary terms. Though this information is important, companies record only events that can be measured in money.

Economic Entity Assumption

An economic entity can be any organization or unit in society. It may be a company (such as **Crocs, Inc.**), a governmental unit (the state of Ohio), a municipality (Seattle), a school district (St. Louis District 48), or a church (Southern Baptist). The **economic entity assumption** requires that the activities of the entity be kept separate and distinct from the activities of its owner and all other economic entities (see **Ethics Note**). To illustrate, Sally Rider, owner of Sally's Boutique, must keep her personal living costs separate from the expenses of her business. Similarly, **J. Crew** and **Gap Inc.** are segregated into separate economic entities for accounting purposes.

Proprietorship A business owned by one person is generally a **proprietorship**. The owner is often the manager/operator of the business. Small service-type businesses (plumbing companies, beauty salons, and auto repair shops), farms, and small retail stores (antique shops, clothing stores, and used-book stores) are often proprietorships. **Usually, only a relatively small amount of money (capital) is necessary to start in business as a proprietorship. The owner (proprietor) receives any profits, suffers any losses, and is personally liable for all debts of the business.** There is no legal distinction between the business as an economic unit and the owner, but the accounting records of the business activities are kept separate from the personal records and activities of the owner.

ETHICS NOTE

The importance of the economic entity assumption is illustrated by scandals involving **Adelphia**. In this case, senior company employees entered into transactions that blurred the line between the employees' financial interests and those of the company. For example, Adelphia guaranteed over \$2 billion of loans to the founding family.

Partnership A business owned by two or more persons associated as partners is a **partnership**. In most respects, a partnership is like a proprietorship except that more than one owner is involved. Typically, a partnership agreement (written or oral) sets forth such terms as initial investment, duties of each partner, division of net income (or net loss), and settlement to be made upon death or withdrawal of a partner. Each partner generally has unlimited personal liability for the debts of the partnership. **Like a proprietorship, for accounting purposes the partnership transactions must be kept separate from the personal activities of the partners.** Partnerships are often used to organize retail and service-type businesses, including professional practices (lawyers, doctors, architects, and certified public accountants).

Corporation A business organized as a separate legal entity under state corporation law and having ownership divided into transferable shares of stock is a **corporation**. The holders of the shares (stockholders) **enjoy limited liability**; that is, they are not personally liable for the debts of the corporate entity. Stockholders **may transfer all or part of their ownership shares to other investors at any time** (i.e., sell their shares). The ease with which ownership can change adds to the attractiveness of investing in a corporation. Because ownership can be transferred without dissolving the corporation, the corporation **enjoys an unlimited life**.

Although the combined number of proprietorships and partnerships in the United States is more than five times the number of corporations, the revenue produced by corporations is eight times greater. Most of the largest companies in the United States—for example, **ExxonMobil, Ford, Walmart Inc., Citigroup, and Apple**—are corporations.

Accounting Across the Organization



blublaf/E+/Getty Images

Spinning the Career Wheel

How will the study of accounting help you? A working knowledge of accounting is desirable for virtually every field of business. Some examples of how accounting is used in business careers include:

General management: Managers at **Ford Motors, Massachusetts General Hospital, California State University-Fullerton, a McDonald's franchise,** and

a **Trek** bike shop all need to understand accounting data in order to make wise business decisions.

Marketing: Marketing specialists at **Procter & Gamble** must be sensitive to costs and benefits, which accounting helps them

quantify and understand. Making a sale is meaningless unless it is a profitable sale.

Finance: Do you want to be a banker for **Citicorp**, an investment analyst for **Goldman Sachs**, or a stockbroker for **Merrill Lynch**? These fields rely heavily on accounting knowledge to analyze financial statements. In fact, it is difficult to get a good job in a finance function without two or three courses in accounting.

Real estate: Are you interested in being a real estate broker for **Prudential Real Estate**? Because a third party—the bank—is almost always involved in financing a real estate transaction, brokers must understand the numbers involved: Can the buyer afford to make the payments to the bank? Does the cash flow from an industrial property justify the purchase price? What are the tax benefits of the purchase?

How might accounting help you? (Answer is available near the end of the chapter.)

ACTION PLAN

- Review the discussion of ethics and financial reporting standards.
- Develop an understanding of the key terms used.

DO IT! 2 | Building Blocks of Accounting

Indicate whether each of the five statements presented below is true or false. If false, indicate how to correct the statement.

1. Congress passed the Sarbanes-Oxley Act to reduce unethical behavior and decrease the likelihood of future corporate scandals.
2. The primary accounting standard-setting body in the United States is the Financial Accounting Standards Board (FASB).

3. The historical cost principle dictates that companies record assets at their cost. In later periods, however, the fair value of the asset must be used if its fair value is higher than its cost.
4. Relevance means that financial information matches what really happened; the information is factual.
5. A business owner's personal expenses must be separated from expenses of the business to comply with accounting's economic entity assumption.

Solution

1. True. 2. True. 3. False. The historical cost principle dictates that companies record assets at their cost. Under the historical cost principle, the company must also use cost in later periods. 4. False. Faithful representation, not relevance, means that financial information matches what really happened; the information is factual. 5. True.

Related exercise material: **DO IT! 1.2, E1.3, and E1.4.**

The Accounting Equation

LEARNING OBJECTIVE 3

State the accounting equation, and define its components.

The two basic elements of a business are what it owns and what it owes. **Assets** are the resources a business owns. For example, **Google** has total assets of approximately \$93.8 billion. Liabilities and stockholders' equity are the rights or claims against these resources. Thus, Google has \$93.8 billion of claims against its \$93.8 billion of assets. Claims of those to whom the company owes money (creditors) are called **liabilities**. Claims of owners are called **stockholders' equity**. Google has liabilities of \$22.1 billion and stockholders' equity of \$71.7 billion.

We can express the relationship of assets, liabilities, and stockholders' equity as an equation, as shown in **Illustration 1.5**.

Assets	=	Liabilities	+	Stockholders' Equity
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ILLUSTRATION 1.5

The basic accounting equation

This relationship is the **basic accounting equation**. Assets must equal the sum of liabilities and stockholders' equity. Liabilities appear before stockholders' equity in the basic accounting equation because they are paid first if a business is liquidated.

The accounting equation applies to all **economic entities** regardless of size, nature of business, or form of business organization. It applies to a small proprietorship such as a corner grocery store as well as to a giant corporation such as **PepsiCo**. The equation provides the **underlying framework** for recording and summarizing economic events.

Let's look in more detail at the categories in the basic accounting equation.

Assets

As noted above, **assets** are resources a business owns. The business uses its assets in carrying out such activities as production and sales. The common characteristic possessed by all assets is **the capacity to provide future services or benefits**. In a business, that service potential or future economic benefit eventually results in cash inflows (receipts). For example, consider Campus Pizza, a local restaurant. It owns a delivery truck that provides economic benefits from delivering pizzas. Other assets of Campus Pizza include tables, chairs, jukebox, cash register, oven, tableware, and, of course, cash.

Liabilities

Liabilities are claims against assets—that is, existing debts and obligations. Businesses of all sizes usually borrow money and purchase merchandise on credit. These economic activities result in payables of various sorts:

- Campus Pizza, for instance, purchases cheese, sausage, flour, and beverages on credit from suppliers. These obligations are called **accounts payable**.
- Campus Pizza also has a **note payable** to First National Bank for the money borrowed to purchase the delivery truck.
- Campus Pizza may also have **salaries and wages payable** to employees and **sales and real estate taxes payable** to the local government.

All of these persons or entities to whom Campus Pizza owes money are its **creditors**.

Creditors may legally force the liquidation of a business that does not pay its debts. In that case, the law requires that creditor claims be paid **before** ownership claims.

Stockholders' Equity

HELPFUL HINT

In some situations, accountants use the term *owner's equity* and in others *owners' equity*. Owner's refers to one owner (the case with a sole proprietorship), and owners' refers to multiple owners (the case with partnerships). The term *stockholders' equity* refers to ownership in corporations.

The ownership claim on a corporation's total assets is **stockholders' equity** (see **Helpful Hint**). It is equal to total assets minus total liabilities. Here is why: The assets of a business are claimed by either creditors or stockholders. To find out what belongs to stockholders, we subtract creditors' claims (the liabilities) from the assets. The remainder is the stockholders' claim on the assets—stockholders' equity. It is often referred to as **residual equity**—that is, the equity “left over” after creditors' claims are satisfied.

The stockholders' equity section of a corporation's balance sheet generally consists of (1) common stock and (2) retained earnings.

Common Stock

A corporation may obtain funds by selling shares of stock to investors. **Common stock** is the term used to describe the total amount paid in by stockholders for the shares they purchase.

Retained Earnings

The **retained earnings** section of the balance sheet is determined by three items: revenues, expenses, and dividends.

HELPFUL HINT

The effect of revenues is positive—an increase in stockholders' equity coupled with an increase in assets or a decrease in liabilities.

Revenues **Revenues are the increases in assets or decreases in liabilities resulting from the sale of goods or the performance of services in the normal course of business** (see **Helpful Hint**). Revenues usually result in an increase in an asset. They may arise from different sources and are called various names depending on the nature of the business. Campus Pizza, for instance, has two categories of sales revenues—pizza sales and beverage sales. Other titles for and sources of revenue common to many businesses are sales, fees, services, commissions, interest, dividends, royalties, and rent.

HELPFUL HINT

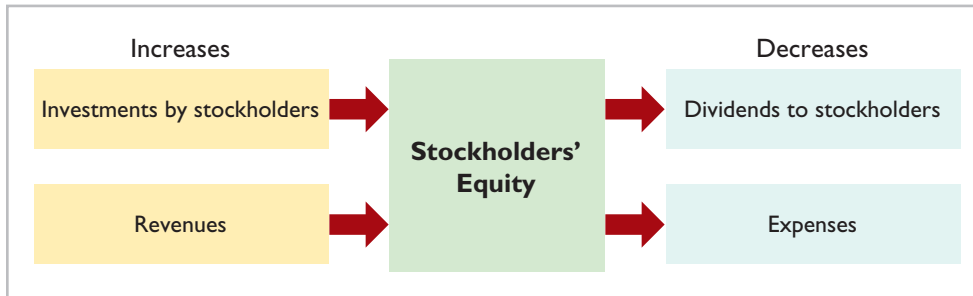
The effect of expenses is negative—a decrease in stockholders' equity coupled with a decrease in assets or an increase in liabilities.

Expenses **Expenses are the cost of assets consumed or services used in the process of generating revenue. They are decreases in stockholders' equity that result from operating the business** (see **Helpful Hint**). Like revenues, expenses take many forms and are called various names depending on the type of asset consumed or service used. For example, Campus Pizza recognizes the following types of expenses: cost of ingredients (flour, cheese, tomato paste, meat, mushrooms, etc.); cost of beverages; wages expense; utilities expense (electric, gas, and water expense); telephone expense; delivery expense (gasoline, repairs, licenses, etc.); supplies expense (napkins, detergents, aprons, etc.); rent expense; interest expense; and property tax expense.

Dividends Net income represents an increase in net assets which are then available to distribute to stockholders. The distribution of cash or other assets to stockholders is called a **dividend**. Dividends reduce retained earnings. However, dividends are **not an expense**.

A corporation first determines its revenues and expenses and then computes net income or net loss. If it has net income and decides it has no better use for that income, a corporation may decide to distribute a dividend to its owners (the stockholders).

In summary, the principal sources (increases) of stockholders' equity are investments by stockholders and revenues from business operations. In contrast, reductions (decreases) in stockholders' equity result from expenses and dividends. These relationships are shown in **Illustration 1.6**.

**ILLUSTRATION 1.6**

Increases and decreases in stockholders' equity

DO IT! 3 | Stockholders' Equity Effects

Classify the following items as issuance of stock (I), dividends (D), revenues (R), or expenses (E). Then indicate whether each item increases or decreases stockholders' equity.

- | | |
|---------------------|--------------------------------|
| 1. Rent Expense. | 3. Dividends. |
| 2. Service Revenue. | 4. Salaries and Wages Expense. |

Solution

1. Rent Expense is an expense (E); it decreases stockholders' equity. 2. Service Revenue is revenue (R); it increases stockholders' equity. 3. Dividends is a distribution to stockholders (D); it decreases stockholders' equity. 4. Salaries and Wages Expense is an expense (E); it decreases stockholders' equity.

Related exercise material: **BE1.1, BE1.2, BE1.3, BE1.4, BE1.5, DO IT! 1.3, and E1.5.**

ACTION PLAN

- Understand the sources of revenue.
- Understand what causes expenses.
- Review the rules for changes in stockholders' equity.
- Recognize that dividends are distributions of cash or other assets to stockholders.

Analyzing Business Transactions

LEARNING OBJECTIVE 4

Analyze the effects of business transactions on the accounting equation.



The system of collecting and processing transaction data and communicating financial information to decision-makers is known as the **accounting information system**. Factors that shape an accounting information system include the nature of the company's business,

This **accounting cycle graphic** illustrates the steps companies follow each period to record transactions and eventually prepare financial statements.

the types of transactions, the size of the company, the volume of data, and the information demands of management and others.

Most businesses use computerized accounting systems—sometimes referred to as electronic data processing (EDP) systems. These systems handle all the steps involved in the recording process, from initial data entry to preparation of the financial statements. In order to remain competitive, companies continually improve their accounting systems to provide accurate and timely data for decision-making. For example, in a recent annual report, **Tootsie Roll** stated, “We also invested in additional processing and data storage hardware during the year. We view information technology as a key strategic tool, and are committed to deploying leading edge technology in this area.” In addition, many companies have upgraded their accounting information systems in response to the requirements of Sarbanes-Oxley.

Accounting information systems rely on a process referred to as **the accounting cycle**. As you can see from the graphic at the beginning of this section, the accounting cycle begins with the analysis of business transactions and ends with the preparation of a post-closing trial balance. We explain each of the steps, starting in this chapter and continuing in Chapters 2–4.

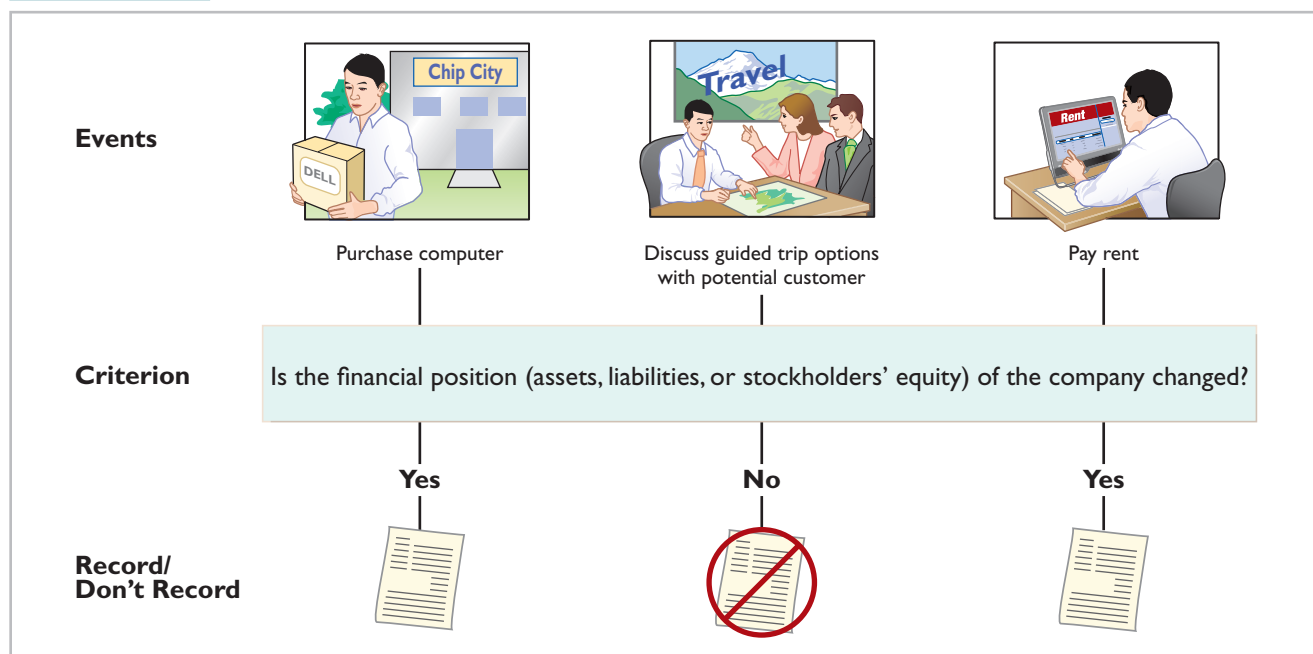
In this text, in order to emphasize the underlying concepts and principles, we focus on a manual accounting system. The accounting concepts and principles do not change whether a system is computerized or manual.

Accounting Transactions

Transactions (business transactions) are a business’s economic events recorded by accountants. Transactions may be external or internal. **External transactions** involve economic events between the company and some outside enterprise. For example, Campus Pizza’s purchase of cooking equipment from a supplier, payment of monthly rent to the landlord, and sale of pizzas to customers are external transactions. **Internal transactions** are economic events that occur entirely within one company. The use of cooking and cleaning supplies are internal transactions for Campus Pizza.

Companies carry on many activities that do not represent business transactions. Examples are hiring employees, responding to e-mails, talking with customers, and placing merchandise orders. Some of these activities may lead to business transactions: Employees will earn wages, and suppliers will deliver ordered merchandise. The company must analyze each event to find out if it affects the components of the accounting equation. If it does, the company will record the transaction. **Illustration 1.7** demonstrates the transaction identification process.

ILLUSTRATION 1.7 Transaction identification process



Each transaction must have a dual effect on the accounting equation. For example, if an asset is increased, there must be a corresponding:

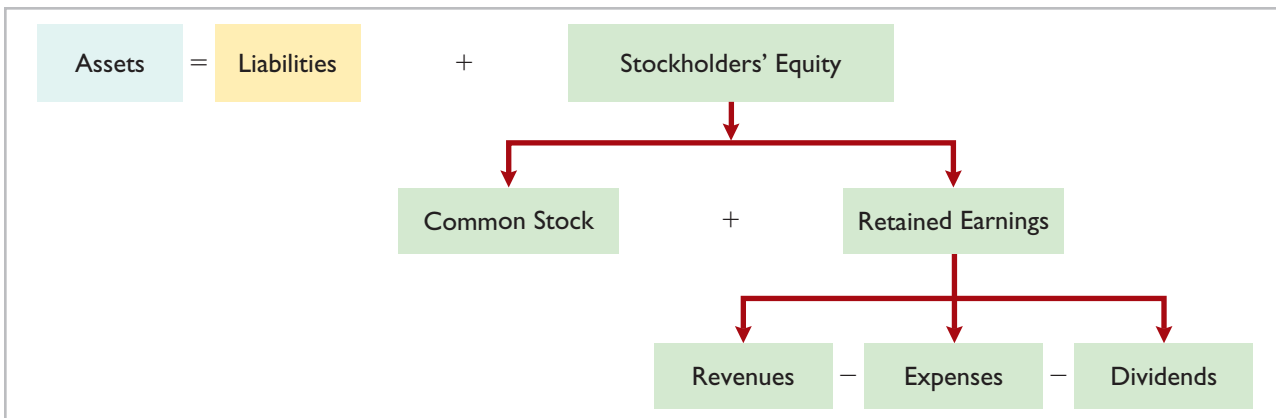
- Decrease in another asset, *or*
- Increase in a specific liability, *or*
- Increase in stockholders' equity.

Two or more items could be affected. For example, as one asset is increased \$10,000, another asset could decrease \$6,000 and a liability could increase \$4,000. Any change in a liability or ownership claim is subject to similar analysis.

Transaction Analysis

To demonstrate how to analyze transactions in terms of the accounting equation, we will review the business activities of Softbyte Inc., a smartphone app development business, during its first month of operations. As part of this analysis, we will expand the basic accounting equation. This will allow us to better illustrate the impact of transactions on stockholders' equity. Recall that stockholders' equity is comprised of two parts: common stock and retained earnings. Common stock is affected when the company issues new shares of stock in exchange for cash. Retained earnings is affected when the company earns revenue, incurs expenses, or pays dividends. **Illustration 1.8** shows the **expanded accounting equation**.

ILLUSTRATION 1.8 Expanded accounting equation



If you are tempted to skip ahead after you've read a few of the following transaction analyses, don't do it (see **Helpful Hint**). Each has something unique to teach, something you'll need later. (We assure you that we've kept them to the minimum needed!)

Transaction 1. Investment of Cash by Stockholders Ray and Barbara Neal start a smartphone app development company that they incorporate as Softbyte Inc. On September 1, 2020, they invest \$15,000 cash in the business in exchange for \$15,000 of common stock. The common stock indicates the ownership interest that the Neals have in Softbyte Inc. This transaction results in an equal increase in both assets and stockholders' equity.

HELPFUL HINT

Study these transactions until you are sure you understand them. They are not difficult, but understanding them is important to your success in this course. The ability to analyze transactions in terms of the basic accounting equation is essential in accounting.

Basic Analysis	The asset Cash increases \$15,000, and stockholders' equity (specifically, Common Stock) increases \$15,000.			
Equation Analysis		<u>Assets</u>	=	<u>Liabilities</u> + <u>Stockholders' Equity</u>
		Cash	=	Common Stock
(1)		+\$15,000	=	+\$15,000 Issued Stock

Observe that the equality of the basic equation has been maintained. Note also that the source of the increase in stockholders' equity (in this case, issued stock) is indicated. Why does this matter? Because investments by stockholders do not represent revenues, and they are excluded in determining net income. Therefore, it is necessary to make clear that the increase is an investment rather than revenue from operations. Additional investments (i.e., investments made by stockholders after the corporation has been initially formed) have the same effect on stockholders' equity as the initial investment.

Transaction 2. Purchase of Equipment for Cash Softbyte Inc. purchases computer equipment for \$7,000 cash. This transaction results in an equal increase and decrease in total assets, though the composition of assets changes.

Basic Analysis	The asset Cash decreases \$7,000, and the asset Equipment increases \$7,000.																																							
Equation Analysis	(2)	<table><tr><th colspan="2">Assets</th><th>=</th><th>Liabilities</th><th>+</th><th>Stockholders' Equity</th></tr><tr><td>Cash</td><td>+ Equipment</td><td>=</td><td></td><td></td><td>Common Stock</td></tr><tr><td>\$15,000</td><td></td><td></td><td></td><td></td><td>\$15,000</td></tr><tr><td>-7,000</td><td>+7,000</td><td></td><td></td><td></td><td></td></tr><tr><td>\$ 8,000</td><td>+ \$7,000</td><td>=</td><td></td><td></td><td>\$15,000</td></tr><tr><td colspan="2">\$15,000</td><td></td><td></td><td></td><td></td></tr></table>	Assets		=	Liabilities	+	Stockholders' Equity	Cash	+ Equipment	=			Common Stock	\$15,000					\$15,000	-7,000	+7,000					\$ 8,000	+ \$7,000	=			\$15,000	\$15,000							
Assets		=	Liabilities	+	Stockholders' Equity																																			
Cash	+ Equipment	=			Common Stock																																			
\$15,000					\$15,000																																			
-7,000	+7,000																																							
\$ 8,000	+ \$7,000	=			\$15,000																																			
\$15,000																																								

Observe that total assets are still \$15,000. Common stock also remains at \$15,000, the amount of the original investment.

Transaction 3. Purchase of Supplies on Credit Softbyte Inc. purchases headsets (and other computer accessories expected to last several months) for \$1,600 from Mobile Solutions. Mobile Solutions agrees to allow Softbyte to pay this bill in October. This transaction is a purchase on account (a credit purchase). Assets increase because of the expected future benefits of using the headsets and computer accessories, and liabilities increase by the amount due Mobile Solutions.

Basic Analysis	The asset Supplies increases \$1,600, and the liability Accounts Payable increases \$1,600.									
Equation Analysis		<u>Assets</u>				=	<u>Liabilities</u>	+	<u>Stockholders' Equity</u>	
		Cash	+	Supplies	+	Equipment	=	Accounts Payable	+	Common Stock
		<u>\$8,000</u>		<u></u>		<u>\$7,000</u>		<u></u>		<u>\$15,000</u>
	(3)			+\$1,600				+\$1,600		
		<u>\$8,000</u>	+	<u>\$1,600</u>	+	<u>\$7,000</u>	=	<u>\$1,600</u>	+	<u>\$15,000</u>
	<u>\$16,600</u>						<u>\$16,600</u>			

Total assets are now \$16,600. This total is matched by a \$1,600 creditor's claim and a \$15,000 ownership claim.

Transaction 4. Services Performed for Cash Softbyte Inc. receives \$1,200 cash from customers for app development services it has performed. This transaction represents Softbyte's principal revenue-producing activity. Recall that **revenue increases stockholders' equity**.

Basic
Analysis

The asset Cash increases \$1,200, and stockholders' equity increases \$1,200 due to Service Revenue.

Equation
Analysis

Assets				=	Liabilities	+	Stockholders' Equity			
Cash	+	Supplies	+	Equipment	=	Accounts Payable	+	Common Stock	+	Retained Earnings
										Rev. - Exp. - Div.
\$8,000		\$1,600		\$7,000		\$1,600		\$15,000		
(4) +1,200										+1,200
\$9,200	+	\$1,600	+	\$7,000	=	\$1,600	+	\$15,000	+	\$1,200
\$17,800						\$17,800				

Service
Revenue

The two sides of the equation balance at \$17,800. Service Revenue is included in determining Softbyte's net income.

Note that we do not have room to give details for each individual revenue and expense account in this illustration. Thus, revenues (and expenses when we get to them) are summarized under one column heading for Revenues and one for Expenses. However, it is important to keep track of the category (account) titles affected (e.g., Service Revenue) as they will be needed when we prepare financial statements later in the chapter.

Transaction 5. Purchase of Advertising on Credit Softbyte Inc. receives a bill for \$250 from the *Daily News* for advertising on its online website but postpones payment until a later date. This transaction results in an increase in liabilities and a decrease in stockholders' equity.

Basic
Analysis

The liability Accounts Payable increases \$250, and stockholders' equity decreases \$250 due to Advertising Expense.

Equation
Analysis

Assets				=	Liabilities	+	Stockholders' Equity			
Cash	+	Supplies	+	Equipment	=	Accounts Payable	+	Common Stock	+	Retained Earnings
										Rev. - Exp. - Div.
\$9,200		\$1,600		\$7,000		\$1,600		\$15,000		\$1,200
(5)						+250				-\$250
\$9,200	+	\$1,600	+	\$7,000	=	\$1,850	+	\$15,000	+	\$1,200 - \$250
\$17,800						\$17,800				

Advertising
Expense

The two sides of the equation still balance at \$17,800. Retained Earnings decreases when Softbyte incurs the expense. Expenses do not have to be paid in cash at the time they are incurred. When Softbyte pays at a later date, the liability Accounts Payable will decrease and the asset Cash will decrease (see Transaction 8). The cost of advertising is an expense (rather than an asset) because Softbyte has used the benefits. Advertising Expense is included in determining net income.

Transaction 6. Services Performed for Cash and Credit Softbyte Inc. performs \$3,500 of app development services for customers. The company receives cash of \$1,500 from customers, and it bills the balance of \$2,000 on account. This transaction results in an equal increase in assets and stockholders' equity.

Basic
Analysis

Three specific items are affected: The asset Cash increases \$1,500, the asset Accounts Receivable increases \$2,000, and stockholders' equity increases \$3,500 due to Service Revenue.

Equation
Analysis

Assets						=	Liabilities	+	Stockholders' Equity					
Cash	+	Accounts Receivable	+	Supplies	+	Equipment	=	Accounts Payable	+	Common Stock	+	Retained Earnings		
												Rev.	Exp.	Div.
\$ 9,200				\$1,600		\$7,000		\$1,850		\$15,000		\$1,200	\$250	
(6)	+1,500	+2,000										+3,500		
	\$10,700	+	\$2,000	+	\$1,600	+	\$7,000	=	\$1,850	+	\$15,000	+	\$4,700	− \$250
	\$21,300							\$21,300						

Service Revenue