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DAN RIMNICEANU

*this certificate for the prescribed curriculum of study for the*  
MINOR IN BUSINESS ADMINISTRATION

Issue Date: 16 octombrie 2018

Certificate ID: 12055131



A handwritten signature in black ink, appearing to read "Devon Ritter".

Devon Ritter  
Director of Education,  
Saylor Academy



*Saylor Academy awards*

**Dan Rimniceanu**

*this certificate of achievement for*  
**BUS103: Introduction to Financial Accounting**

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Accounting is the language of business. If you are learning accounting for the first time, embracing its foundational concepts may be a challenging process. Mastery of accounting primarily rests in your ability to critically think through and synthesize the information as it applies to a given situation. You should approach the learning of accounting the same way you would approach learning a foreign language; it will take time and practice to ensure you remember the concepts.

There are a number of sub-disciplines that fall under the umbrella of accounting, but this course will focus on financial accounting. Accounting as a business discipline can be viewed as a system of compiled data. *Data* should not be confused with *information*. In accounting, *data* is the raw transactions or business activity that happens within any business entity. For example, if someone uses \$30,000 of their savings to start a business, that is a point of data. Now that you have this data, what are you going to do with it? Of course, the answer is accounting!

Taking data and transforming it into useful *information* is what happens when a business uses accounting. *Information* is the communicated results *data* as it has happened in a business within a period of time. This information is used by decision-makers determine specific courses of action for the business.

This course will introduce you to financial accounting in preparation for more advanced business topics. Recording financial information in a standard format allows managers, investors, lenders, stakeholders, and regulators to make appropriate decisions. In this course, we will look at the Income Statement, Balance Sheet, Statement of Cash Flows, and Statement of Shareholders' Equity. You will learn how to compile and analyze these financial statements, determine the value of a firm, and compare the firm to its competitors.

## Unit 1: Accounting Environment, Decision-Making, and Theory

In this introductory unit, you will learn about a variety of the foundational elements of accounting that are crucial to the understanding of the material in this course. To understand financial accounting, you will need to know the purpose of each of the four basic financial statements, how data is captured and transformed into information, and how the accounting equation seeks to ensure that you are properly recording the data. Throughout this course, you will be introduced to various career opportunities related to the concepts of this course. Consider this information as an exploration of the viability of accounting as a career possibility and a way of reinforcing how significant these concepts are to the success of business operations.

**Completing this unit should take you approximately 11 hours.**

- Upon successful completion of this unit, you will be able to:
  - demonstrate an understanding of the foundational principles and objectives of accounting;

- apply the accounting equation to illustrate the impact of business transactions and to transform business transactions (data) into usable information; and
- identify the foundational accounting concepts, assumptions, or principles through the analysis of specific business situations.

- 1.1: The Accounting Environment

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-  [The Accounting EnvironmentFile](#)

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Read and take notes on Chapter 1 on pages 14-29.

This will be the primary textbook used within this course. The beginning of every chapter provides chapter-specific learning objectives. Do not confuse these learning objectives with the learning outcomes you see in the course syllabus and at the outset of each unit. You should use the chapter-specific learning objectives as a guide as you read and understand the information presented in the textbook. The learning outcomes indicate what you should know and be able to do at the end of a particular unit of this course.

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- Section 1.2 discusses how to define accounting and what the end result of accounting (accounting information) may be used for.
  - Section 1.3 looks at potential employment opportunities associated with accounting for business. Note Exhibit 1 on page 18, which reviews the functions performed by accountants.
  - Section 1.4, discusses the difference between financial and managerial accounting. If you think you might be interested pursuing financial accounting further, you may want to take [BUS105: Managerial Accounting](#).
  - Section 1.5 introduces the Generally Accepted Accounting Principles, or GAAP, and the various organizations that have a major impact on how GAAP is administered, including the Securities and Exchange Commission (SEC), the Financial Accounting Standards Board (FASB), and the American Accounting Association (AAA).
  - Section 1.6 explains how important it is to be ethical in your application of accounting principles and discusses the importance of managing your reputation. Be mindful of this, especially if you are considering a career in accounting.
  - The final section is optional but might help you get more from the textbook.
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- 1.1.1: Financial Accounting vs. Managerial Accounting

- [Characteristics of Managerial AccountingURL](#)

Read the introduction and section 1.1. This chapter will introduce you to the principles of managerial accounting and points out the differences between managerial accounting and financial accounting. Managerial accounting is

not used by outside parties; it is primarily used internally by management to make decisions that affect the efficiency of the organization.

- 1.1.2: The Development of Financial Accounting Standards

- [Conventions and StandardsPage](#)

- In this article, you will learn about the rules that govern accounting. GAAP sets the rules that accounts follow when making journal entries and standardizes accounting so that comparisons can be made among companies by outside parties. Investors, creditors, even employees count on the consistency of financial reporting in order to evaluate operations. Be sure you have accomplished the learning outcome in each section before you move on to the next section.

- [Conventions and Standards Quiz](#)

- Take this brief quiz to check your understanding of the standards and rules of accounting. It is crucial to this course that you have a firm understanding of GAAP rules. Take your time and make sure that understand what is being asked.

- 1.2: Foundational Business and Accounting Concepts and Transaction Analysis

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- 1.2.1: Basic Accounting Concepts

- [GAAP Principles and ConceptsPage](#)

- This video introduces basic accounting principles. Pay attention to the various accounting entries and how transactions affect businesses. This short video is only an introduction; further reading will be necessary to get a good understanding of GAAP.

- 1.2.2: Introducing Financial Statements

- [Interpreting Corporate Financial StatementsPage](#)

- This video demonstrates how transactions lead to the creation of financial statements. Vendors, creditors, and investors are only a few of the people who look at and analyze the company's financials. Financials should be internally scrutinized to catch and correct any errors before they are released. If the organization has an outstanding load, generally there are restrictions regarding the ratios that are calculated from the financials. The accountants of the organization should know these ratios as well.

- 1.3: Accounting and Its Use in Business Decisions

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-  [Accounting and its Use in Business DecisionsFile](#)

- Read and take notes on Sections 2.1 through 2.12 of Chapter 2 on pages 30-53.

In this chapter, you will learn why accounting is important to the business community. You will learn the different types of businesses and how daily transactions are posted and how they affect the financial statements. This chapter also demonstrates how to prepare the income statement, balance sheet, and statement of stockholders' equity. Pay close attention to the steps involved in the accounting cycle from beginning to end.

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- In Section 2.1, you are provided with chapter-specific learning objectives.
- In Section 2.2, you will get another look at a potential employment opportunity for someone interested in the business discipline of accounting.
- In Section 2.3, there is some discussion of the concept identified as "the entity concept". Be sure you understand the meaning of this concept, and the differences between a single (sole) proprietorship, a partnership, and a corporation.
- Section 2.4 explains that a business entity can be distinguished by the type of activity it performs – that is, service company, merchandising company, or manufacturing company – as opposed to being identified by the type of business ownership.
- Section 2.5 discusses the four financial statements and provides illustrations to support the discussion. There is also a discussion on revenues and expenses, as they impact net income or net loss.
- Section 2.6 discusses the framework of the entire accounting process, which may also be called the accounting equation. The fundamental accounting equation is the basic equation that accountants use to record business transactions. The equation states "assets = liabilities + owners' equity". This section gives the direct and alternative identifications of these elements to help you speak the language of accounting. Assets are things that expect to have future value to the company. For example, if the company buys a new car, this car has future value to the company. Liabilities are promises to pay. Some companies may not have all of the money to pay cash for the car, so they will typically finance, or obtain credit for, and borrow the difference between the down payment and the final price of the car. If approved, the company now promises to pay back the bank or business entity who gave the company money. Owners' equity is the owners' claims on assets. This basically means that, as an owner of the company, you have a claim on the asset that is now identified as the new car the company owns.
- Section 2.7 introduces a number of concepts of business transactions and how they affect the accounting equation.
- Section 2.8 illustrates how some business transactions affect the balance sheet. Write out the examples in this section on pages 41-44. As you read, follow along with these examples and take notes.

- Section 2.9 illustrates how some business transactions affect the income statement and/or balance sheet. Write the examples on pages 46-48, follow along with them, and take notes.
- Section 2.10 is a summary of balance sheets and income statement transactions.
- Section 2.11 explains what happens when a stockholder receives a dividend (a return on their investment in a company).
- Section 2.12 explains the significance of creditors and stockholders as the basic sources of a company's equity. The equity ratio is introduced and examples are provided to support your understanding of this information.

### ○ 1.3.1: Financial Statements

- [Beginners' Guide to Financial StatementsPage](#)  
Read this article, which walks through the foundational elements of basic accounting and reading financial statements. Some terms have not been covered fully yet, but will be further explained later.
- [Overview of Financial StatementsURL](#)  
Read each section in this chapter, which explains the purpose of the balance sheet, income statement, and the cash flow statement. It also is a guide to where you will find financials on publicly traded companies. You should get as much practice working on these statements as you can, since they are the fundamental information on any organization. Make the connections between each financial statement. The more you understand the connectivity of these statements, the better understanding you will have of how the entire accounting system works, which is important if you want to pursue a career in auditing.
- [Overview of Financial Statements Quiz](#)  
Take this quiz to check your understanding of the material from this chapter.

### ○ 1.3.2: Understanding the Accounting Equation

- [Interpreting Corporate Financial StatementsPage](#)  
This video demonstrates how transactions lead to the creation of financial statements, which are a great source of reference. The video demonstrates how transactions are directly connected to financial statements and how the individual events of the accounting cycle are connected.
- [The Accounting CyclePage](#)  
This short introduction explains the complete accounting cycle in theory, from journal entries to financial statements. Some of this is a repeat, but this short refresher can help you understand a bit better now that you've had a little hands-on work.

- [The Accounting Process Quiz](#)  
This short quiz will test your knowledge of the accounting equation and transactions.
- 1.3.3: Principles of Accounting Transactions
- [Accounting Cycle Step 1: Analyze TransactionsPage](#)  
This video will take you through the various accounting transactions and explain the posting process. Take note of how each transaction affects accounts on the balance sheet and income statement. Though the steps might seem dull and uninteresting, it is important that you be very detailed when journalizing and posting. If you slip up, you will be out of balance and you will have to go back and retrace your steps.
  - [Accounting Cycle Step 2: Journalize TransactionsPage](#)  
This video takes you through journal entries and posting to T accounts, and is a continuation of the accounting cycle. Sometimes, it's easier to "see" accounting in action rather than just read about it.
  - [Accounting Cycle Step 3: Post TransactionsPage](#)  
This video takes you deeper into the accounting cycle and walks through how to post transactions to the journal at T accounts.
  -  [Principles of Accounting TransactionsURL](#)  
This article will give you an introduction to the principles of accounting transactions. Accounting transactions record the amount of money spent and received by a given entity. Take notes while you read.
- 1.3.4: Transactions Affecting the Income Statement and/or Balance Sheet
- [Accounting Cycle Step 4: Unadjusted Trial Balance \(Corporations\)Page](#)  
This video discusses adjusting entries, which you will need to do to get your worksheet ready for the preparation of the financial statements.
  - [Financing Your OrganizationURL](#)  
This page explains the importance of using an accounting system, which will be especially important if you are interested in becoming an auditor.
  -  [Discussion QuestionsFile](#)  
These discussion questions cover a variety of accounting topics, such as the chart of accounts, double book entries, budget preparation, and information given to the public. Two questions that rely on concepts that you really have not yet touched upon yet, but don't worry; we'll get there. Try to answer the questions in all of the bullet points except for the last three. Consider posting your answers on the discussion forum.

- 1.4: Accounting Theory

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-  [Accounting Theory File](#)

Read and take notes on Sections 6.1 through 6.16 of Chapter 6 on pages 253-283.

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- Section 6.2 looks at potential employment opportunities in accounting.
  - Sections 6.3 and 6.4 introduce the foundational assumptions and concepts associated with accounting, providing a detailed definition of each.
  - Section 6.5 introduces other key elements of accounting: double entry, substance over form, and general-purpose financial statements.
  - Section 6.6 discusses assigning the effects of business activity (the transactions) within a specified time frame (accounting period).
  - Section 6.7 discusses the major principles supporting the field of accounting, such as the matching principle or the revenue recognition principle, and their impact on the overall application of GAAP (Generally Accepted Accounting Principles).
  - Section 6.8 explains why a business entity would not be applying the principles of accounting within the business. These instances are identified as cost-benefit, materiality, and conservatism. Pay attention to Exhibit 29.
  - Section 6.9 gives an overview of the dispute and some key points to consider.
  - Section 6.10 introduces financial reporting and the details of each of its objectives.
  - Section 6.11 addresses the characteristics that make the information relevant. Pay attention to the hierarchy of accounting quality in Exhibit 31 on page 273. The underlying intent behind creating financial reports is for the information in the reports to be reliable enough to support sound business decision-making.
  - Section 6.12 develops a conceptual framework for understanding accounting.
  - Sections 6.13 and 6.14 teach that most companies will include a copy of their accounting policies when they submit their annual report.
  - Section 6.15 covers significant policies associated with accounting.
  - Section 6.16 reviews the chapter, and lists key terms, offers self-test questions. The answers to the self-test are on pages 300 and 301.
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## Unit 2: Recording Business Transactions

There is a specific way that data is recorded, so a foundational understanding of this process is necessary. Understanding the meaning and use of concepts like journals, journal entries, ledger, trial balance, debits and credits, and vertical/horizontal analysis is an important part of studying financial accounting.

## Completing this unit should take you approximately 6 hours.

- Upon successful completion of this unit, you will be able to:
  - describe the accounting cycle and be able to identify specific debits and credits, journals, t-accounts, a trial balance, and resulting financial statements.

### • 2.1: Debits and Credits

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-  [Recording Business TransactionsURL](#)

This chapter explains the rules regarding debits and credits. Debits and credit increase and decrease certain accounts. Spend some time learning the rules of debits and credits, since they are the foundation of accounting principles. Posting a debit where a credit should be, or vice versa, will cause you to be out of balance. You will then have to re-trace all of your postings to uncover your error, which would be very frustrating and time-consuming.

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### • 2.2: The Accounting Process

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- [The Accounting CycleURL](#)

Read each section on this page. You have been exposed to the concepts of recording and journalizing transactions previously, but this explains the rest of the accounting process.

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- [Accounting Cycle Steps 5–9Page](#)

Watch these short videos on the accounting cycle. If you need to, rewatch the videos for Steps 1 through 4 before you begin. These videos go through the entire accounting cycle: journals, postings, worksheets, adjusting entries, post-closing entries, and financial statements. You will see the process as one continuous activity. The method is slightly different between sole proprietorship companies and corporations. Learn both, since over the course of your career you may find yourself in both types of organization.

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-  [Recording Business TransactionsURL](#)

Read page 76 on the rules of debits and credits, and copy and keep handy as a quick reference. Then, jump ahead and read pages 80 and 81. Examine the section on the ledger and the chart of accounts again. Learning about financial accounting for the first time is all about building upon and refining your knowledge of accounting processes and methods step-by-step. Be sure to note which accounts are permanent and which accounts are temporary.

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## Unit 3: Adjustments for Financial Reporting

By now, you should understand the guiding principles and concepts of accounting. You will now need to learn how to synthesize this information, which often requires an adjusting journal entry. Before you can learn about adjusting entries, you will need to be able to distinguish between cash- and accrual-based accounting. There is some distinction between the two methods, and while some smaller businesses may be able to effectively use a cash basis of accounting, most organizations use an accrual basis of accounting. Because of this, we will use the accrual basis in this course.

**Completing this unit should take you approximately 3 hours.**

- Upon successful completion of this unit, you will be able to:
  - identify why adjusting entries are necessary; and
  - distinguish among various types of adjusting entries.
- 3.1: Adjustments for Financial Reporting

-  [Adjustments for Financial Reporting](#) URL

Read and take notes on sections 4.1-4.10 on pages 144-173.

This chapter dives deeper into the importance of making proper adjustments so that the financial statements reflect the current condition of the organization. One of the main principles of accounting is accurate and honest presentation of the financial condition of an organization. Without the proper posting of adjustments and correcting entries, the financial statements will be incorrect.

- Section 4.2 reviews employment opportunities for someone interested in accounting.
- Section 4.3 teaches the difference between cash- and accrual-based accounting, which rests on the identification of revenues and expenses. Be sure to make a note of Exhibit 14.
- Section 4.4 described snapshots. Because the ultimate goal is to obtain useful information, we need to take snapshots. Accounting is typically done within a specified period so that end users can assess the performance of a business entity. This section also discusses accounting periods, fiscal years, calendar years, adjusting entries, the matching principle, and the two classes and four types of adjusting entries. Be sure to make a note of Exhibit 16.
- Section 4.5 reviews the classes of adjusting entries and gives an example to assist with analysis.
- Section 4.6 focuses on how prepaid expenses and depreciation affect the accounting equation and the overall processing of these transactions.
- Section 4.7 discusses adjustments. In a business, there will be transactions that will not have been recorded by the end of a specified accounting cycle. These items can be identified as accrued assets or interest revenue, to name a couple. This section discusses how to process these transactions.
- In Section 4.8, note Exhibit 18.

- Section 4.9 introduces the concept of trend percentages and gives the formula to use when calculating trend percentages.
  - Section 4.10 summarizes and gives a self-test. The solutions to the self-test are on pages 188 and 189.
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- [Cash vs. Accrual Accounting](#)Page

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This video goes into more detail about cash versus accrual based accounting. Compare it to what you read in the chapter previously. This will help to clarify the difference between these two methods of accounting.

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- 3.2: Visualizing the Adjusting Journal

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- [Adjusting Entries Overview](#)Page

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You watched this video in Unit 2, but it may be good to review it now that you know more about adjustments. In accounting, you can't introduce new material without referencing the previous steps.

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- [Completing the Accounting Cycle](#)Page

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This article breaks down completing the accounting cycle. Pay attention to the section on adjustments, the section on closing out the accounting cycle process, and the steps involved in closing the books, which we will cover in greater detail in the next unit.

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- [The Accounting Cycle Quiz](#)

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These quiz questions will help you check your understanding of the adjustment process.

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## Unit 4: Completing the Accounting Cycle

So far, you've learned how to process the raw data of the transactions that happen in a business entity into useable information in the form of the financial statements. This unit will explain how to review and summarize the accounting cycle and prepare the income statement, the statement of retained earnings, and the balance sheet. You will also see how to use an accounting worksheet to organize your work, prepare adjusting entries, and complete a post-closing trial balance.

**Completing this unit should take you approximately 3 hours.**

- Upon successful completion of this unit, you will be able to:
  - discuss and demonstrate the use of the accounting worksheet as a means of preparing the financial statements; and
  - explain and execute the closing process for the accounting cycle.

- 4.1: Completing the Accounting Cycle

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-  [Completing the Accounting CycleFile](#)

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Read and take notes on sections 5.1-5.11 on pages 190-231.

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- Section 5.3 summarizes what we've learned so far and introduces the accounting worksheet.
  - Section 5.4 discusses the accounting worksheet step-by-step using the example of the MicroTrain company.
  - Section 5.5 shows a worksheet that you can use to create your financial statements.
  - Section 5.6 explains how the accounting worksheet can be your source for making the adjusting entries. The worksheet is an informal document that supports the analysis of the accounting information; it is not a part of the formal accounting process. Some people prefer to use the worksheet, and you should learn the basics of it. As you become more comfortable, you can decide whether or not to use it.
  - Section 5.7 discusses the nominal account, which describes a temporary account. When you take your snapshot of a specific accounting period, you need to address the nominal accounts.
  - Section 5.8 analyzes how technology has affected financial accounting.
  - Section 5.9 compares balance sheets and classified balance sheets.
  - Section 5.10 discusses and the current ratio, which is a firm's ability to pay off its current liabilities with its current assets. A basic standard suggests that a business should maintain a 2-to-1 ratio to meet its financial obligations. However, there are many variables that determine what is best in a given situation.
  - Section 5.11 summarizes the chapter and offers a self-test. The solutions to the self-test are on pages 250 and 251.
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-  [What is a 10-Column Worksheet in Accounting?URL](#)

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This article gives links to specific accounting information that is used to complete the accounting worksheet.

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- 4.2: The Closing Process

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- [Adjusting and Closing EntriesPage](#)

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You have already watched the first three videos here, but review them now and then watch the final two videos, which discuss using the perpetual method, the closing cycle, and the preparation of financial statements.

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## Unit 5: Financial Reporting and Financial Statement Analysis

In this unit, you will learn about financial reporting and examine the financial statements of a public company. Public companies are required to file their financial statements with

the SEC on a quarterly and annual basis. The SEC has a standard format for presenting financial information that helps us read and interpret financial information.

**Completing this unit should take you approximately 5 hours.**

- Upon successful completion of this unit, you will be able to:
  - locate public company financial statements and read and interpret financial statements.

- **5.1: Financial Reporting**

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-  [Obstacles to Good Financial ReportingURL](#)
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This article goes behind the scenes to discuss issues of reporting financial information for public companies. GAAP is integral in reporting transactions.

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-  [Research Public Companies Through EDGAR: A Guide for InvestorsURL](#)
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This is a great introduction to resources that you can use to research any public company. All public companies must report their financials; quarterly reports, end of your tax forms, changes in top management, and so on. If you ever need to look up a company, this will give you the tools you need to navigate the public records system.

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-  [How to Read a 10-KURL](#)
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Although learning how to read a report sounds pedantic, you might be surprised at how much valuable information they offer.

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- **5.2: Financial Statement Analysis**

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-  [Analysis and Interpretation of Financial StatementsURL](#)
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Read the short chapter 17, which discusses how to analyze financial statements and demonstrates the use of ratios and the horizontal and vertical analysis tools that everyone from creditors to investors, vendors, and top management use when they want to identify the strengths and weaknesses in an organization.

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## Unit 6: Accounting for Inventory – Measuring and Reporting

Many businesses have to buy merchandise for their end-users to conduct their daily activities. There are a number of ways to account for the purchasing and integration of this merchandise within a business, and the decision on how a business will account for this rests on a number of factors. This unit introduces the inventory valuation concepts FIFO (First in First Out), LIFO (Last in First Out), and the weighted average. Choosing an inventory valuation method is a major decision a merchandising business entity will have to make before the merchandise is purchased. It also dictates the valuation of the merchandise on hand within the business.

## Completing this unit should take you approximately 7 hours.

- Upon successful completion of this unit, you will be able to:
  - identify and analyze accounting transactions of a merchandising company; and
  - define and solve for specific business situations involving various inventory methods.

### 6.1: Introduction to Inventories and the Classified Income Statement

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-  [Introduction to Inventories and the Classified Income StatementURL](#)

Read Chapter 6 and pay attention to the comparison of the two income statements. This chapter reviews the difference in reporting and financial presentation of information for service and merchandising operations and compares recording inventories for two separate types of businesses.

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- [Understanding InventoryURL](#)

Read this section, which focuses on the nature of inventory, categories of goods included in inventory, components of inventory cost, and the flow of inventory costs.

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- [Controlling InventoryURL](#)

Read this section, which focuses on internal controls, perpetual verses periodic counting, conducting a physical inventory, and the impact of measurement error.

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### 6.2: Measuring and Reporting Inventories

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-  [Measuring and Reporting InventoriesURL](#)

Read chapter 8. For many organizations, inventory represents a large portion of their assets, so it is important to be familiar with measurement and reporting techniques.

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- [Determine Physical Units of InventoryPage](#)

This video addresses shipping costs and when inventory should be recorded as an asset or not during shipping.

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- [Valuing InventoryURL](#)

Read this section, which focuses on the four inventory costing methods and the impact each has on the financial statements.

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- [Additional Topics in Inventory ValuationURL](#)
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Read this section, which focuses on the lower of cost or market and methods in retail inventory.

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- [Assessing Inventory ManagementURL](#)
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Read this section, which focuses on efficiency metrics and the impact of inventory method on financial statement analysis.

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- [Reporting and Analyzing InventoriesURL](#)
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Read this section, which focuses on reporting inventories and inventory turnover ratio.

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- [Controlling and Reporting of Inventories Quiz](#)
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Attempt this practice quiz, which covers inventory reporting, valuation, and costing.

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## Unit 7: Receivables and Payables Identified

During the course of regular business, it is common to provide credit to some customers. Once a business provides an extension of credit, it now owns a promise that it will be paid back. As part of this agreement, the business entity will charge interest at varying rates, which are typically imposed based on the customer's creditworthiness. It is also common that the business will not be able to collect some of these credit extensions. In accounting, we identify these promises someone makes to a business entity as accounts receivable. This unit discusses accounts receivables and highlights specific information on what to do when a business extends credit to its customers.

During the regular course of business, there will also be times where the business entity needs to make specific purchases to support the regular business activity when they do not have enough cash on hand from a current asset perspective. In these situations, the business should have lines of credit, where the business has promised to pay someone else as a result of being extended a particular line of credit or goods on credit. These transactions are considered payables and create liabilities for the organization. Liability can also be considered a promise to pay.

**Completing this unit should take you approximately 3 hours.**

- Upon successful completion of this unit, you will be able to:
    - define and apply the accounting elements associated with receivables and payables.
  - 7.1: Receivables and Payables
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-  [Receivables and PayablesFile](#)
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Read and take notes on sections 9.1-9.9 on pages 11-54.

This chapter discusses accounts receivable, uncollectible accounts, bad debts, and accounts payable.

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- Section 9.3 covers what should happen when a receivable is uncollectible. Pay attention to aging schedules, how to write off receivables, and how credit card transactions should be identified and recorded from the business entity's perspective.
  - Section 9.4 discusses liabilities and explains the difference between clearly-determined liabilities, estimated liabilities, and contingent liabilities.
  - Section 9.5 discusses promissory notes and how to account for them. Pay attention to interest receivable, interest revenue, interest expense, and interest payable.
  - Section 9.6 describes how businesses handle short-term cash flow problems when they need short-term financial assistance to support strategic business activity.
  - Section 9.9 offers a self-test. The solution to the self-test is on pages 66 and 67.
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○ [Types of Receivables and Notes ReceivablesPage](#)

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These videos cover accounts receivable. Pay attention to accounts and how to show them on the balance sheet. Uncollectible accounts can be a real problem for an organization.

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• 7.2: Understanding Bad Debt and its Relationship to Receivables

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○ [Dealing with Foreign Currency and Bad DebtsPage](#)

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This article covers foreign currency, bad debts on receivables, gain or loss, net realized receivables, and how foreign currency is treated by U.S. organizations. Since business is global, it is important to the effect this has on the financials of any MNC.

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## Unit 8: Accounting for Property, Plant, and Equipment

Property, plant, and equipment require the largest amount of investment for a company. This unit introduces the life cycle of tangible long-term assets: acquisition, depreciation, and disposal. This unit also includes other long-term assets like natural resources and intangible assets. Businesses like mines and lumber companies account for resources that are extracted from the environment. The most common intangible asset is goodwill, which is recorded when acquiring a company.

**Completing this unit should take you approximately 4 hours.**

- Upon successful completion of this unit, you will be able to:
  - identify, record, and depreciate property, plant, and equipment; and
  - distinguish between tangible and intangible assets.

- 8.1: Property, Plant, and Equipment

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-  [Property, Plant, and EquipmentFile](#)

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Read and take notes on sections 10.1-10.10 on pages 68-103.

This chapter introduces how organizations categorize and account for fixed assets. Assets are recorded at cost, not necessarily market value. It also covers the various methods of depreciation, why each method is used, and the "rate of return" expected by an organization when they purchase an asset.

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- Section 10.2 identifies the accountant's role in managing plant assets.
  - Section 10.3 explains how to classify assets using three key elements, and introduces the four steps of accounting for plant assets.
  - Section 10.4 discusses the initial recording of plant assets. You should be able to explain fair market value, acquisition costs, historical costs, and which costs are capitalized. Review how to record the life history of a depreciable asset to ensure the proper account and true financial picture of an organization's assets. Pay attention to the difference in the cost and accounting for the construction of a new building versus buying land and assets for a specific lumped price. Be sure you know the difference between book value and appraised value.
  - Section 10.5 discusses the reality that all assets with the exception of land have a useful life. A business should expect some wear and tear on assets as a direct result of using them to support business activity. Depreciation is an allocations process that ensures the useful life of an asset is properly identified from accounting and company valuation. There are three major causes of depreciation and four methods of depreciation.
  - Section 10.6 distinguishes capital expenditures, revenue expenditures, and betterments. Each affects the assets value, its useful life, and financial statements. It can be difficult to account for additional costs incurred related to long-term assets.
  - Section 10.7 discusses subsidy ledgers for plant assets and what happens to the accounting structure when a revenue expenditure is treated as a capital expenditure.
  - Section 10.10 offers a self-test. The solution to the self-test is on pages 118-119.
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- 8.2: Plant Asset Disposal, Natural Resources, and Intangible Assets

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-  [Plant Asset Disposals, Natural Resources, and Intangible AssetsFile](#)

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Read and take notes on sections 11.1-11.10 on pages 120-155.

This details the events that need to be dealt with when disposing assets. There are balance sheet and income statement entries that must be recorded when getting rid of equipment by scrapping it or selling it. It also discusses intangible assets, how to record them, and how to account for their diminishing value.

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- Section 11.3 discusses how, with the exception of land, all assets eventually become of little to no use. A company will have to make the decision to trade the asset for a newer version, retire the asset altogether, or sell the asset. How is this decision made?
  - Section 11.4 discusses the sale of a plant asset. Many business entities will eventually have to dispose of a plant asset. When this happens, the company will either have a loss or show a gain depending on the difference between the asset's sale price and its book value. This section shows journal entries from a variety of situations, including a gain on the sale of an asset, a loss on the sale of an asset, how to realize loss, and what to do when a fire or flood that destroys an asset.
  - Section 11.5 discusses the depletion of a natural resource and how to journalize it.
  - Section 11.6 identifies the sources of an intangible asset. Pay attention to trademarks, amortization, patents, copyrights, trademarks, goodwill, and franchises.
  - Section 11.7 explains the total assets turnover ratio, which illustrates the relationship between monetary volume and the average of the total asset.
  - Section 11.9 offers a self-test. The solutions to self-test are on pages 173-174.
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## Unit 9: Long-Term Liabilities and Stockholders' Equity

This unit addresses the two ways a company can raise funds: debt and equity. To finance long-term assets, companies issue long-term debt in the form of bonds. Equity is most often issued when companies begin operations to raise startup capital. If you want to learn more about debt and equity, you may be interested in [BUS202: Principles of Finance](#).

**Completing this unit should take you approximately 8 hours.**

- Upon successful completion of this unit, you will be able to:
    - describe the difference between bonds and capital stock;
    - describe par value, discount, and premium as they relate to bonds;
    - explain how interest rates affect bond prices;
    - account for bonds issued at par, a discount, or a premium;
    - identify different types of capital stock and discuss differences between common stock and preferred stock;
    - prepare a statement of shareholders' equity; and
    - account for paid-in capital, cash dividends, stock dividends, stock splits, and retained earnings appropriations.
  - 9.1: Long-Term Liabilities: Bonds
    -  [Long-Term Financing: BondsFile](#)
-

Read chapter 15, which introduces long-term bonds, their value, how they compare with stock. Some companies expand using stock, while some use debt (bonds). The example exercises refer to Appendix A, which you may find [here](#).

- [Valuing Long-Term Bonds](#)Page

This video explains the valuation of various bond types and discusses finding the market price of a bond.

- 9.2: Stockholders' Equity: Capital Stock

-  [Stockholders' Equity: Classes of Capital Stock](#)File

Read chapter 12, which details stockholders' equity, specifically capital stock. You learn about the different classes of stock, their characteristics, how capital appears on the Statement of Stockholders' Equity, and the steps for issuing stock to the public.

- 9.3: Stockholders' Equity: Corporations

-  [Corporations: Paid-in Capital, Retained Earnings, Dividends, and Treasury Stock](#)File

Read chapter 13, which outlines the different sources of paid-in capital and how they are presented on the balance sheet. This chapter also covers treasury stock, dividends, stock splits, and price-per-share and price-per-earnings ratios.

- [Reporting of Stockholders' Equity Quiz](#)

Attempt this quiz, which covers the reporting of stockholders' equity on the balance sheet.

## Unit 10: Statement of Cash Flows

The balance sheet and income statement are prepared using the accrual basis of accounting. The statement of cash flows is prepared using information from accrual-basis statements to tell what cash was received and how cash was spent. The statement of cash flows classifies business transactions as operating activities, investing activities, or financing activities.

**Completing this unit should take you approximately 7 hours.**

- Upon successful completion of this unit, you will be able to:
  - describe the types of business transactions that are included in operating, investing, and financing activities; and
  - describe the difference between the indirect and direct methods of preparing the statement of cash flows.

- 10.1: Operating Activities

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Operating activities on the statement of cash flows stem from a company's day-to-day operations. These activities include making sales to customers and paying vendors and employees. The operating activities section of the statement of cash flows can be prepared using the direct or indirect method.

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-  [Analysis Using the Statement of Cash FlowsFile](#)
- 

Read sections 16.1-16.22 on pages 394-463. This chapter shows how to record cash flow from operating activities on the statement of cash flows.

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- [Calculating Cash FlowsPage](#)
- 

This article shows the two different methods of preparing a statement of cash flows: direct and indirect.

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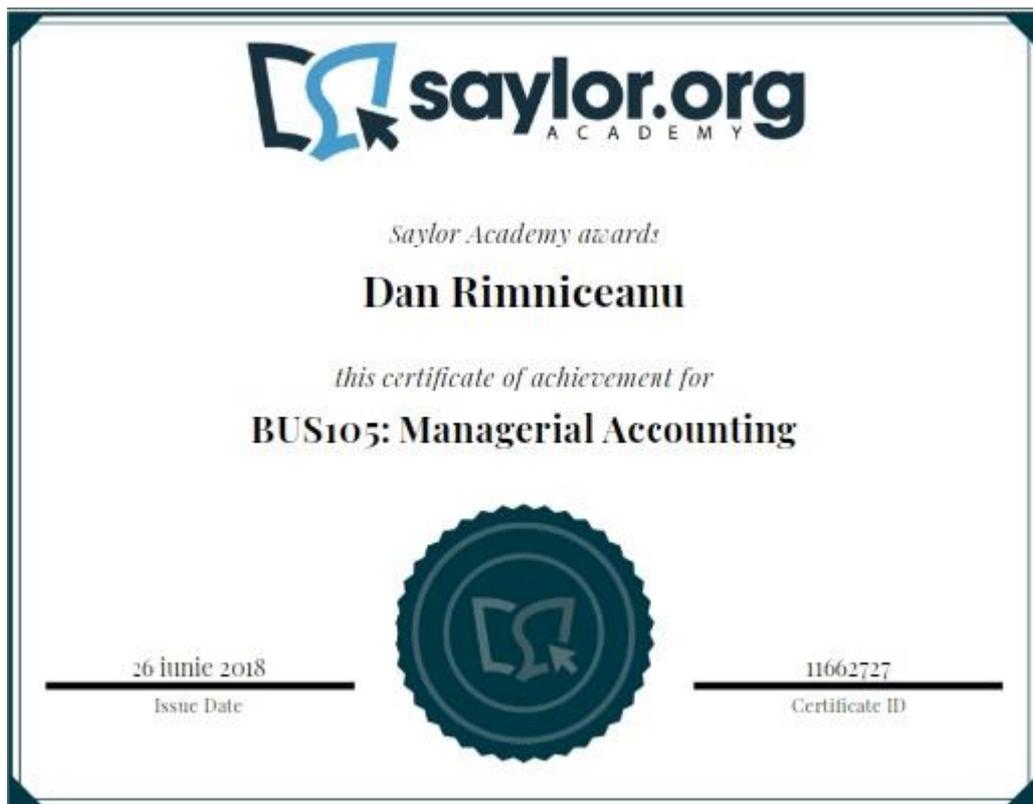
- 10.2: Financing Activities

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- [Cash Flow ExerciseURL](#)
- 

This exercise quizzes you on your knowledge of the statement of cash flow and its components.

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## Unit 1: Cost Measurement and Estimation

We begin by examining the differences between financial and managerial accounting. The primary difference pertains to the audience: who will read the reports? Financial accounting information is geared toward external users, while managerial accounting is for internal users. Managerial accounting is integral to making operational and strategic decisions.

In this unit, we examine the manufacturing process and related financial accounting transactions so that you can differentiate between costs assigned to products and costs assigned to a period of time. The flow of costs in accounting mirrors the physical flow of the inventory. For example, a pizza parlor buys the direct materials they put on their pizzas (cheese, tomatoes, and pepperoni). When a customer orders a pizza, the restaurant assembles the direct materials, bakes (work in process), completes a pizza (finished goods), and delivers it to the customer.

**Completing this unit should take you approximately 5 hours.**

- Upon successful completion of this unit, you will be able to:
  - compare and contrast financial accounting and managerial accounting, in terms of audience, reporting, timeframe, and use of information;
  - describe the planning and control functions managers perform;
  - describe the functions key finance and accounting personnel perform;

- describe standards of ethical conduct used to resolve ethical conflicts facing accountants;
- describe how accounting systems help organizations;
- define the terms accountants use for costing purposes;
- identify how costs flow through the three inventory accounts and cost of goods sold account; and
- describe how to prepare an income statement for a manufacturing company.

## • 1.1: Financial Accounting vs. Managerial Accounting

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### ○ [Characteristics of Managerial AccountingURL](#)

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As you read this section, pay attention to the differences between financial accounting and managerial accounting. These differences are illustrated in [Table 1.1](#). Also, evaluate what types of managerial accounting information you use or produce in your job. Were you surprised to realize that you are already familiar with some parts of managerial accounting?

The subtopics below will discuss how managerial accounting contributes to the planning and controlling functions. The four functions of management – planning, organizing, leading, and controlling – are covered in [BUS208: Principles of Management](#).

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### ○ [Comparison of Management and Financial AccountingPage](#)

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This article discusses the differences between financial and managerial accounting.

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## • 1.2: Merchandisers and Manufacturers

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### ○ [Planning and Control Functions Performed by ManagersURL](#)

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Good managers are always planning for the future and assessing the present. The functions that enable management to plan for the future and assess implementation continually are planning and control. Planning is the process of establishing goals and communicating these goals to employees of the organization. The control function is the process of evaluating whether the organization's plans were implemented effectively.

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### ○ [Managerial AccountingPage](#)

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As you read this chapter, identify the various needs managerial accounting meets and how various participants in the management process would use the many outcomes of managerial accounting.

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## • 1.3: Key Finance and Management Accounting Personnel

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- [Key Finance and Accounting PersonnelURL](#)

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Dana Matthews, president of Sportswear Inc., a publicly-traded company, has many responsibilities. Like most managers of large publicly-traded companies, she has delegated much responsibility to her managers and has many questions that need answers.

Although Dana has delegated much responsibility she cannot delegate accountability and she must ensure that her organization is effective and the information she receives is accurate. Best practices require an efficient organization to ensure that management accounting is done in a timely and accurate manner. This section considers what a typical organization may look like.

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- 1.4: Ethical Issues Facing the Accounting Industry

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- [Ethical Issues Facing the Accounting IndustryURL](#)

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Mark Twain told us that there are three types of lies: "lies, damned lies and statistics". Management accountants produce many statistics! How expenses are allocated and how revenue is accounted for is far from set in stone. For example, the owner of a restaurant and bar could choose to take his salary as a dividend and thereby pump up profitability, perhaps to impress or mislead a potential buyer! As a management accountant you need to be aware of ethical issues and studiously avoid practices that mislead and misdirect those who will use your information.

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- 1.5: Computerized Accounting Systems

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- [Computerized Accounting SystemsURL](#)

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Selecting a company's computer system is more than a software or hardware decision – it is a complex problem that usually requires scrupulous research and a full rethinking of the organization's culture and reporting relationships. Today, most companies have a computerized financial system that creates financial and management accounting reports.

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- 1.6: Cost Terminology

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- [Cost TerminologyURL](#)

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Classifying costs and revenue correctly is critical to consistent financial reporting. A consistent report has uniform meaning within the company. In this section, you will learn some of the basic terminology used to classify costs. This section of the textbook is important to your success in this course, so be sure to complete the exercises at the end of the section before you move on.

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- 1.7: How Product Costs Flow through Accounts

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- [How Product Costs Flow through AccountsURL](#)

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Costs are associated with and accumulated in broad accounts out of necessity. In this section, you will learn how costs are assigned to those accounts and how those costs can "flow" through another cost account. For example, inventory costs will become costs of goods sold, and work in progress (WIP) cost will become inventory costs. Be sure to complete the exercises at the end of this section before you move on.

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- 1.8: Income Statements for Manufacturing Companies

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- [Income Statements for Manufacturing CompaniesURL](#)

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Manufacturing companies like Ford Motor Company necessarily have different income statements than other types of companies. Service companies like Ernest and Young have a dramatically different income statement from Ford and dramatically different management accounting needs. Merchandisers like Home Depot also require different income statements and management accounting information. In this section, you will consider what the income statements of manufacturers look like – which are probably the most complex type of income statement.

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- 1.9: Basic Math Review

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- [Math for AccountingPage](#)

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Most of us learned the math skills required to be successful in management accounting in high school. The following video reviews these basic math skills.

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## Unit 2: Cost Management

This unit focuses on three categories of cost management: job costing, activity-based costing, and process/production costing. For a company that produces items for a job order, it is easy to identify the direct materials and direct labor needed to complete a specific job. However, how do you determine direct materials if the company uses a continuous assembly line? It would be inefficient to track each unit of production separately.

In this unit, we also address how to allocate manufacturing overhead. Manufacturing overhead consists of costs not directly related to the product, but necessary to run the production process. This includes, but is not limited to, factory equipment, factory rent, and utilities for the factory.

**Completing this unit should take you approximately 19 hours.**

- Upon successful completion of this unit, you will be able to:
  - distinguish between job costing and process costing;

- describe how direct materials and direct labor costs are assigned to jobs;
- explain how manufacturing overhead costs are assigned to jobs;
- use a job costing system to track costs and evaluate profitability for each job;
- explain why organizations allocate overhead costs to products;
- compare and contrast allocating overhead costs using a plant-wide rate, department rates, and activity-based costing;
- use the five steps of activity-based costing to determine product costs;
- define activity-based management;
- apply activity-based costing and activity-based management to service organizations;
- compare and contrast job costing and process costing;
- identify how product costs flow through accounts using process costing;
- define equivalent unit;
- use four steps to assign costs to products using the weighted average method; and
- prepare a production cost report for a processing department.

## • 2.1: Job Costing

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### ○ [How Is Job Costing Used to Track Production Costs?URL](#)

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Read chapter 2. In this chapter, you will learn about Custom Furniture Company, which is in a predicament. The company is not doing as well as its owner, Dan, thought it would. Dan prices his unique tables at 70 percent above what he thinks his production costs are, but his income statements do not reflect that markup. Dan may not be estimating his costs correctly and is, as a result, underselling his products.

Job costing systems record revenues and costs for unique products, like Dan's tables; each table can be easily distinguished from other tables.

An alternate costing method that some companies chose is process costing. Process costing systems record revenues and costs for batches of identical units of product. When deciding whether to use a job costing or process costing system, you must understand a company's products and production processes.

Job costing systems can do more than simply track the costs of each job. Companies also use these systems to track revenue and the resulting profit for each job. A job costing system can also be used to identify areas of concern by comparing the cost estimate prepared before starting the job with the information on the completed job cost sheet. This type of analysis often leads to changes in the production process and revised estimates for future jobs.

By the end of this unit, you will know why Custom Furniture Company is experiencing less profit than Dan had planned for. Job cost analysis confirmed that he underestimated his costs and helped Dan focus on what management decisions he needed to make to remedy the issue.

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- o  [Job CostingFile](#)

Read sections 18.7 to 18.13 on pages 555 to 577. After you read, work through the demonstration problems and self-test at the end of the chapter.

- o [Job Order CostingPage](#)

Watch these four videos, which show several good examples of job order costing.

- 2.2: Activity-Based Costing

- o [How Does an Organization Use Activity-Based Costing to Allocate Overhead Costs?URL](#)

Like Custom Furniture Company, SailRite Company, a fine sailboat maker, is earning less profit than expected. Because SailRite makes many boats but only two models, job costing is not an appropriate costing system. Activity-based costing (ABC) is another method to allocate costs.

Allocation of direct labor and direct materials are allocated the same regardless of which system is used. But overhead, an indirect manufacturing cost, can be allocated several ways, each of which results in a different cost for the same product. The goal is to find a system of allocation that best approximates each product's overhead costs.

ABC allocates overhead based on the activities that are driving the costs. The four steps to apply ABC are relatively straightforward. The key is to determine the appropriate cost driver for each activity. Note that job costing, process costing, and ABC use the same pool of costs. They are just three different ways of analyzing and allocating the cost pool.

At the end of the section, be sure to find out what is going wrong at SailRite and what two management actions or decisions could remedy the lower-than-expected profit.

- o  [Using Accounting for Quality and Cost ManagementFile](#)

Read sections 20.7 to 20.18 on pages 62 to 77. Work through the demonstration problem and self-test at the end of the chapter.

- o [Activity-Based CostingPage](#)

These videos cover the concepts of activity-based costing. They consider Zannon Corporation, which, like SailRite, is experiencing sales growth but shrinking profits. You may want to create your own spreadsheets to follow along.

- 2.3: Process Costing

- o [How is Process Costing Used to Track Production Costs?URL](#)

Desk Products Inc. mass-produces wood desks. It maintains an advantage over its competitors by producing one desk in large quantities: 4,000 to 8,000 desks each month. Changes in the market are causing the CEO, Ann Watkins, to be prioritize

keeping costs as low as possible. The most efficient method to respond to this concern is to use process costing.

A process costing system is used by companies that produce similar or identical product units in batches and employ a consistent process. A job costing system is used by companies that produce unique products or jobs. Process costing systems track costs by processing department, whereas job costing systems track costs by job.

Process costing is best used in an assembly-line production environment. As you read this chapter, pay attention to how department costs are allocated based on the concept of equivalent units.

Pay attention to the production cost report and the information it gives Ann Watkins. How does this improve her management decision making?

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- o  [Process Cost SystemsFile](#)
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Read sections 19.1 to 19.13 on pages 9 to 35. Work through the demonstration problem and self-test at the end of the chapter.

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- o [Process CostingPage](#)
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These videos use the example of Smith, Inc. to work through how to apply process costing. Take note of how WIP is accounted for in the examples.

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### Unit 3: Short-Term Decision-Making

This unit introduces a new way to evaluate costs and make management decisions. Rather than examining direct materials, direct labor, and manufacturing overhead, we rearrange this information as **variable costs**, **fixed costs**, and **mixed costs** (fixed and variable costs combined).

For example, in the previous unit we classified a factory worker who earns a salary and annual bonus based on company performance as direct labor. In this unit, we allocate salary to fixed costs, and the bonus to variable costs. We also explore how managers make short-term decisions (what needs to occur during the next hour, day, week, or year). Fixed cost restraints, such as plant size, equipment size, and age, often define short-term decisions.

Understanding how these three types of cost variables behave allows business managers to predict revenue, operating income, and changes in sales volume.

**Completing this unit should take you approximately 6 hours.**

- Upon successful completion of this unit, you will be able to:
  - identify typical cost behavior patterns;
  - estimate costs using account analysis, the high-low method, the scattergraph method, and regression analysis;
  - prepare a contribution margin income statement;

- describe the assumptions used to estimate costs; and
- perform regression analysis using Excel.

- 3.1: Cost Behavior Patterns

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- [How Do Organizations Identify Cost Behavior Patterns?URL](#)

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Bikes Unlimited is planning its monthly sales. They have recently concluded a successful advertising campaign and expect that sales will increase 10 to 20 percent. They need to know what happens if they adjust manufacturing to meet the predicted increase in sales and their sales predictions are correct. How will increased sales volumes impact profit? First, you have to identify how costs behave with changes in sales and production – behavior depends upon whether the costs are variable, fixed, or mixed. Once you have classified our costs, you can set up an income statement in a "contribution-margin" format to give management a major tool in their decision making.

### **Variable Costs**

The key to understanding and being able to classify a variable cost is to remember that you are thinking about how costs behave relative to production. Variable costs will fluctuate based on how much product is sold. The cost of purchasing chrome tubing for Bikes Unlimited is an obvious variable cost, some variable costs are not so obvious.

### **Fixed Costs**

Fixed costs are incurred whether Bikes Unlimited sells zero units or a billion units. The payment of the annual lease on Bikes Unlimited's factory/warehouse is a good example of a fixed cost: Even if Bikes Unlimited chose to make no bikes, it would have to continue to pay its lease. There are two kinds of fixed costs: (1) some are "committed", those that must happen, such as the lease payment stated above, and others that are discretionary, such as advertising or research and development. Both of these activities could be suspended in the short term.

### **Mixed Costs**

Bikes Unlimited also has mixed costs that have both fixed and variable components. You can think of your cell phone bill as a mixed cost. You pay a flat fee (fixed cost) for a certain number of minutes. If you exceed the set amount of minutes, you have to pay by the minute (variable cost). Bikes Unlimited pays its sales staff based on a base salary plus a commission based on units sold and, finally, a year-end bonus based on overall profitability, which demonstrates all three cost behavior patterns.

### **Short/Long Term and the Relevant Range**

Both short- and long-term costs are important factors in managerial decision-making. This section covers these variables and discusses them in terms of the "relevant range" (also covered in this unit's final section). The relevant range is the portion of the total cost curve beyond increasing returns to scale and before

decreasing returns to scale. A doubling of variable cost inputs should approximately result in a doubling of output within the relevant range.

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- [Cost BehaviorPage](#)

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These videos supplement and reinforce what you've learned thus far. The first video explores the actual behavior of costs and how you might normalize that behavior and use the costs in developing management decision tools. The second extends the graphic model to explain cost behavior. Follow along with your spreadsheet program.

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- [Cost Classification FlashcardsURL](#)

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Work through this exercise to check your understanding of variable, fixed, and mixed costs.

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- 3.2: Cost Estimation Methods

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- [Cost Estimation MethodsURL](#)

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This section continues the story of Bikes Unlimited. Consider the four principle cost estimation methods to estimate fixed and variable costs. Each method has its advantages and disadvantages. The choice of a method depends on the situation at hand. Experienced employees may be able to effectively estimate fixed and variable costs by using the account analysis approach. If a quick estimate is needed, the high-low method may be appropriate. The scatter-graph method can be used to identify any unusual data points that can be thrown out when estimating costs. Finally, regression analysis can be run using computer software, and its precise results will provide more accurate cost estimates.

This unit makes extensive use of the algebraic equation of a straight line. Remedial help with the form and use of this equation is available [here](#).

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- [High-Low MethodPage](#)

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This video demonstrates how the high-low method can be applied to Danny Office Supplies to estimate shipping costs next month. Account analysis is a cost analysis method that requires a review of accounts by experienced employees to determine whether the costs in each account are fixed or variable. This approach is perhaps the most common starting point for estimating fixed and variable costs. The high-low method starts with the highest and lowest activity levels and uses four steps to estimate fixed and variable costs.

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- [ScattergraphPage](#)

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This video demonstrates how the scattergraph method is applied to Danny Office Supplies to estimate shipping costs next month. The scattergraph method has five steps and starts with plotting all points on a graph and fitting a line through the

points. This line represents costs throughout a range of activity levels and estimates fixed and variable costs. The scattergraph is also used to identify any outlying or unusual data points.

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- [Least Squares Regression](#)Page

Regression analysis mathematically determines a line that best fits the data points. Software packages like Excel are available to perform regression analysis. This method is also called the Least Squares Regression.

This video demonstrates how regression analysis can be applied to Danny Office Supplies to estimate the next month's shipping costs. It does this using Microsoft Excel, where regression analysis is a built-in function. See the optional appendix to Unit 3 if you would like to learn how to use this Excel function.

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- 3.3: Contribution Margin Income Statement

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- [Contribution Margin Income Statement](#)URL

This section considers the contribution margin income statement, which shows fixed and variable components of cost information. Revenue minus variable costs equals the contribution margin. The contribution margin minus fixed costs equals operating profit. This statement provides a clearer picture of which costs change and which costs remain the same with changes in activity levels.

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- 3.4 The Relevant Range and Nonlinear Costs

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- [The Relevant Range and Nonlinear Costs](#)URL

This section continues to discuss the relevant range. Along with the assumption of linearity, the relevant range must be considered when estimating costs using the methods described in this unit. When costs are estimated for a specific level of activity, the assumption is that the activity level is within the relevant range. Costs are estimated assuming that they are linear. Both assumptions are reasonable as long as the relevant range is clearly identified, and the linearity assumption does not significantly distort the resulting cost estimate.

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- [Performing Regression Analysis with Excel](#)URL

This section is optional because it specifically addresses Microsoft Excel, which you are not required to have to take this course. Regression analysis is an important part of managerial accounting. It provides the best fit between independent variables and allows the best estimations to be made through extrapolation. The following section provides students with a guide to performing regression analysis with Microsoft Excel. Most spreadsheet programs provide this function.

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## Unit 4: Cost-Volume-Profit Analysis

This unit explores the relationships that revolve around costs, volume, and profit (CVP) and how companies plan for profitability. We examine how business managers use costs, volume, and profit to calculate how much they need to produce to achieve the break-even point and generate future profits. For example, a chief executive officer of a company that manufactures snowboards should know how many boards they need to produce to cover their costs and earn a decent profit by the end of the month.

Breakeven analysis is synonymous with CVP analysis and identifies how key variables affect financial projections and profitability.

**Completing this unit should take you approximately 3 hours.**

- Upon successful completion of this unit, you will be able to:
  - perform cost-volume-profit analysis for single-product companies;
  - use sensitivity analysis to determine how changes in the cost-volume-profit equation affect profit;
  - describe how cost structure affects cost-volume-profit sensitivity analysis; and
  - use an alternative form of contribution margin when faced with a resource constraint.

- **4.1: Cost-Volume-Profit Analysis**

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- [Cost-Volume-Profit Analysis for Single-Product CompaniesURL](#)

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In this unit, Snowboard Company uses CVP analysis to determine its break-even point and what additional volumes it would need to sell to achieve a decent profit. CVP assumes that the selling price per unit is the same throughout the relevant range. Cost-volume-profit analysis involves finding the break-even point and target profit point in units and sales dollars. The key formulas for an organization with a single product are developed and explained in the reading.

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- [Cost-Volume-Profit Analysis – Part 1Page](#)

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This video walks through an example of applying CVP analysis.

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- **4.2: Using Cost-Volume-Profit Models for Sensitivity Analysis**

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- [Using Cost-Volume-Profit Models for Sensitivity AnalysisURL](#)

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Financial predictions are rarely exactly correct; there is a natural variance in predictions. As a result of this natural variance, managers should always be aware of how sensitive their predictions are to fluctuations in the model's variables. Sensitivity analysis shows how the cost-volume-profit model will change with changes in any of its variables. Although the focus is typically on how changes in variables affect profit, accountants often analyze the effects of uncertainty on the break-even point and target profit.

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- 4.3: Impact of Cost Structure on CVP Analysis

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- [Impact of Cost Structure on Cost-Volume-Profit AnalysisURL](#)

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This section explores the effects that various loads of fixed costs have on CVP analysis. The amount of fixed costs (cost structure) that a company carries is often established by the type of industry it operates in. The cost structure of a firm describes the proportion of fixed and variable costs to total costs. Operating leverage refers to the level of fixed costs within an organization. The term "high operating leverage" is used to describe companies with relatively high fixed costs. Firms with high operating leverage tend to profit more from increasing sales and lose more from decreasing sales than a similar firm with low operating leverage

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- 4.4: Using a Contribution Margin When Faced with Resource Constraints

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- [Using a Contribution Margin When Faced with Resource ConstraintsURL](#)

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In this section, you will examine the case of Kayaks-For-Fun, which has limited amounts of labor. How do they manage those constrained units of labor to maximize profits? Many organizations operate with limited resources in labor hours, machine hours, facilities, or materials. The contribution margin per unit of constraint helps determine how constrained resources should be allocated.

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- [Cost-Volume-Profit Analysis ContinuedPage](#)

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These videos continue the series on CVP analysis. Watch parts 2 through 4 to see more real applications of CVP analysis. These videos continue the ABC Company's project from part 1.

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## Unit 5: Differential Analysis

In this unit, we examine how manufacturers decide whether to outsource elements of their operation. This decision process requires making a differential analysis to determine the revenues and costs for alternative courses of action. To do this, we will use the contribution margin income statement format. We will examine relatively simple and more complex examples to establish the format used to perform differential analysis.

**Completing this unit should take you approximately 4 hours.**

- Upon successful completion of this unit, you will be able to:
  - describe the purpose of differential analysis;
  - use differential analysis for make-or-buy decisions;
  - use differential analysis for product line decisions;
  - use differential analysis to decide whether to keep or drop customers;
  - use differential analysis for special order decisions;
  - define cost terms used in differential analysis;

- describe how to use cost-plus pricing and target costing to establish prices; and
- evaluate qualitative factors when using differential analysis.

- 5.1: Using Differential Analysis to Make Decisions

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- [Using Differential Analysis to Make DecisionsURL](#)

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Read the introduction to Chapter 7 and section 7.1. The company, Best Boards, uses differential revenues and costs to show the difference in revenues and costs among alternative courses of action. Differential analysis helps make managerial decisions related to making or buying products, keeping or dropping product lines, keeping or dropping customers, and accepting or rejecting special customer orders. Soon, we will examine each of these four scenarios where differential analysis can be used.

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- [Sunk and Differential CostsPage](#)

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Watch this video, which lays out the relevant costs for decision-making and defines some of the terms used in the rest of this series. Sunk costs are not relevant to decision-making, but differential costs (different costs between alternatives) are relevant.

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- [Terms Used in Differential AnalysisPage](#)

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This page outlines some of the important terms used in differential analysis.

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- [Product-Line DecisionsURL](#)

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Managers often use differential analysis to determine whether to keep or drop a product line. Direct fixed costs are typically eliminated if a product line is eliminated and are therefore considered differential costs. Allocated fixed costs are typically not eliminated if a product line is eliminated and are not differential costs. Managers compare sales revenue and costs for each alternative (keep or drop) and select the alternative with the highest profit.

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- [Drop or Retain?Page](#)

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This video goes over the case of Jen's Sweaters, which has been experiencing losses and is considering eliminating a product line.

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- [Make-or-Buy DecisionsURL](#)

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Best Boards' decision is whether to make its own wakeboards or buy them from a supplier. Differential analysis requires the identification of all revenues and costs that differ from one alternative to another. In general, managers select the alternative with the highest profit. If the only differences between the alternatives

are with costs (as in the make-or-buy decision for Best Boards), decision-makers will select the alternative with the lowest cost.

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- [Make or Buy?Page](#)

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This video examines a make-or-buy decision that Snazzy Jazzi Footwear is trying to make, and how differential analysis can be used to assist.

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- [Customer DecisionsURL](#)

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Managers use differential analysis to determine whether to keep or drop a customer. The format is similar to the differential analysis format used for making product line decisions. However, sales revenue, variable costs, and fixed costs are traced directly to customers rather than product lines.

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- [Special Order DecisionsURL](#)

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Tony's T-shirts makes shirts for local sports teams. Occasionally, Tony will receive special orders that involve additional costs. How does Tony go about deciding whether or not to accept these special orders? Managers often use differential analysis to decide whether to accept a special one-time order made by a customer. Managers compare sales revenue and costs for each alternative (accept or reject the special order) and select the alternative with the highest profit. Organizations must be careful to consider the long-run implications of reducing prices for special orders.

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- [Special OrderPage](#)

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Kaatz is the only producer of Ting. Kaatz has received a special order for 5000 units. How can Kaatz make a sound financial decision? This video explores these questions.

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- 5.2: Cost-Plus Pricing and Target Costing

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- [Cost-Plus Pricing and Target CostingURL](#)

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In this section, you will explore other pricing systems and why companies may use them. Cost-plus pricing starts with an estimate of the costs incurred to build a product, and a certain profit percentage is added to establish the price. Companies often use this method when it is difficult to determine a reasonable market price. Target costing integrates the product design, desired price, desired profit, and desired cost into one process beginning at the product development stage.

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- 5.3: Be Aware of Qualitative Factors

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- [Be Aware of Qualitative FactorsURL](#)

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Although accountants are responsible for providing relevant and objective financial information to help managers make decisions, qualitative factors also play a significant role in the decision-making process.

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## Unit 6: Budgeting

In this unit, we explore the components for preparing a master budget and its underlying performance schedules. Business managers create budgets to plan for future operations, create benchmarks to measure progress, and maintain necessary accounting controls. The budget process involves coordination among every department that is part of the company. Once the master budget is complete, the company can measure how actual performance compares with the budget.

**Completing this unit should take you approximately 5 hours.**

- Upon successful completion of this unit, you will be able to:
  - describe how budgets are used for planning and controlling operations;
  - explain the process of establishing budgets;
  - develop the components of a master budget, including multiple schedules;
  - describe operating budgets for merchandising, service, and not-for-profit organizations; and
  - analyze ethical issues in creating operating budgets.

### • 6.1: The Budget Process

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- [How Are Operating Budgets Created?URL](#)

Read the introduction and section 9.1.

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- [The Budgeting ProcessURL](#)

Jerry's Ice Cream knows that a good budget results from consulting with all levels of the company and having a well-rounded budget committee to prepare the master budget. All levels of the company must share in creating the master budget and be prepared to implement it fully.

Budgeting is vital to the planning and controlling phases of the management cycle. For a company that has ends its fiscal year on December 31, the budgeting process may start as early as August.

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### • 6.2: The Master Budget

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- [The Master BudgetURL](#)

Read from section 9.3 through the rest of chapter 9. The master budget for Jerry's Ice Cream has numerous schedules, including budget schedules for sales, production, direct materials, direct labor, manufacturing overhead, selling and administrative, the income statement, capital expenditures, cash, and the balance

sheet. The sales budget is most important because sales projections drive the other budgets.

To get the most out of this unit, you should attempt to recreate your own master budget for Jerry's Ice Cream. If you are going to use Excel, each schedule should be a separate sheet. Be sure to include all sums and linkages as you prepare your own master budget.

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- **6.3: Budgeting in Nonmanufacturing Organizations**

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- [Budgeting in Nonmanufacturing OrganizationsURL](#)

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The examples we have used so far to describe a master budget have been limited to manufacturing companies. Manufacturing companies tend to have comprehensive operating budgets and therefore serve as a good starting point in learning how to develop a master budget. However, all types of organizations use operating budgets. This section describes operating budgets for merchandising, service, and not-for-profit organizations.

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- **6.4: Ethical Issues in Creating Operating Budgets**

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- [Ethical Issues in Creating Operating BudgetsURL](#)

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This section considers the inherent conflict that can exist between the planning and control phases of budgeting. During the planning phase, organizations are most concerned about getting accurate estimates that lead to positive results. The control phase requires evaluating the performance of CEOs, managers, and employees by comparing actual results to the operating budget. CEOs, managers, and employees often must decide between doing what is best for them and what is best for the organization.

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## Unit 7: Variance Analysis

In this unit, we examine how managers analyze their budgets and actual results to make better decisions. We will explore various methods for rationalizing the master budget for actual results. When actual sales volume is higher than planned in the master budget, variable costs should also be higher. For example, we will follow how Jerry's Ice Cream modifies its planned master budget during long, hot summers. We will also consider various "problems" that explain variance and how to use accounting for variance to improve ongoing management decisions.

**Completing this unit should take you approximately 7 hours.**

- Upon successful completion of this unit, you will be able to:
  - describe how flexible budgets are used to evaluate performance;
  - explain how standard costs are established;
  - calculate and analyze direct materials variances;

- calculate and analyze direct labor variances;
- calculate and analyze variable manufacturing overhead variances;
- determine which variances to investigate;
- explain how to use cost variance analysis with activity-based costing; and
- calculate and analyze fixed manufacturing overhead variances.

- **7.1: Flexible Budgets**

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- [Flexible BudgetsURL](#)

Read the introduction and section 10.1. The assumptions of the master budget will rarely be completely accurate. As a result, organizations use a modified budget called a flexible budget. A flexible budget is a revised master budget based on the actual activity levels. The flexible budget represents what costs should be based on the actual levels of sales/activity. In this unit, the text assumes the beginning and ending finished goods inventory are the same, and therefore units produced and sold will be the same.

As you read, follow along with how Jerry's Ice Cream handles a doubling of expected sales – sweet news! The summer was hotter and longer than usual! As they modify their master budget, follow along with the budget you created in Excel and modify it as well, but keep your master budget intact. All you have to do is save a copy of the master file with a different name.

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- [Examples of Flexible BudgetsPage](#)

These videos give two examples of how flexible budgets may be prepared and used. Work along with them by creating your own Excel file. The first video discusses flexible budgets and their use. The second video solves a typical exam question about flexible budgets.

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- **7.2: Standard Costs**

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- [Standard CostsURL](#)

In this section, you will see what happens when the master budget plan deviates significantly from the assumptions used to develop it. When a deviation from the master budget becomes apparent, one of the possible causes is that actual costs were not known when the master budget was developed and standard costs were used. Standard costs are those costs that management expects to incur to provide a good or service and are typically stated as a cost per unit. Standard cost is based on the combination of price (or rate) and quantity (or hours). They serve as the "standard" by which performance will be evaluated and are used to produce the master budget.

Follow along and document how Jerry's Ice Cream used standard costs to develop a master budget and how that contributes to variance from the actual results. You should note that a standard cost is a per-unit cost, while a

master budget cost is the total cost at a given standard level of activity/standard quantity of units.

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- 7.3: Direct Materials Variance Analysis

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- [Direct Materials Variance AnalysisURL](#)

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Jerry's Ice Cream is concerned about cost overruns of direct materials. This section examines the "causation" of direct materials variance. The master budget amount allocated to direct materials is made up of two estimated parts, the quantity (Q) of materials included and the price (P) of those materials. Any variance in this cost category from the master budget can be accounted for by an increase or decrease in P and/or Q. Attribution of the variance to its cause(s) is critical to management decisions.

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- [Direct Materials VariancesPage](#)

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This video gives examples from Steve's Sausages, using a diagrammatic method to calculate direct materials variance. The diagram integrates standard and actual measures of price and quantity. By following this method, you will be able to break down variance into those factors associated with quantity changes and price changes.

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- 7.4: Direct Labor Variance Analysis

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- [Direct Labor Variance AnalysisURL](#)

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Jerry's Ice Cream wants to know why there are cost overruns for direct labor. This section considers another significant factor of variance: direct labor. Like direct material variance, direct labor variance has two possible causes: labor rate variance and labor efficiency variance. As with materials, any variance in this cost category from the master budget can be accounted for. Attribution of the variance to its cause(s) is critical to management decisions.

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- [Direct Labor VariancesPage](#)

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This video demonstrates a diagrammatic method of separating causes of variance and their attribution using the case of Frank's Bikes. Frank has fixed amounts of labor, which is a slight twist on the case of Jerry's Ice Cream, which had a variable amount of labor. Small and large companies differ in how they manage their labor supply, as do companies with one product compared to companies with many products.

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- 7.5: Variable Manufacturing Overhead Variance Analysis

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- [Variable Manufacturing Overhead Variance AnalysisURL](#)

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The final piece of the puzzle for Jerry's Ice Cream is variable manufacturing overhead variance. Variable manufacturing overhead variance has two distinct variances. When you calculate both variances, one is favorable and the other

is not. The two variances are the spending variance and efficiency variance. The variable overhead spending variance is the difference between actual costs for variable overhead and budgeted costs based on the standards.

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- [Finding Variances DiagrammaticallyPage](#)

This video demonstrates a diagrammatic method of finding the variances. The client, Widgets R Us, has unfavorable variances, and the video explores reasons why this could happen.

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- 7.6: Determine Which Cost Variance to Investigate

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- [Determining Which Cost Variances to InvestigateURL](#)

At Jerry's Ice Cream or any other company, each budget line item could have an associated variance. The question becomes which variances should be investigated. As a decision-maker, you have limited resources, and you should allocate them to their most productive use. Every investigation consumes resources and has a direct expense associated with it. All managers must be judicious in selecting and investigating variances. Let's return to Jerry's Ice Cream to determine which variance you would track and examine.

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- 7.7: Using Variance Analysis

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- [Using Variance Analysis with Activity-Based CostingURL](#)

If a company uses ABC (activity-based costing), like Jerry's Ice Cream, it cannot establish one standard variable overhead rate and standard quantity based on one cost driver. ABC companies must establish several standard variable overhead rates and quantities, each having its own cost driver. Regardless of whether a company uses the traditional costing approach or an activity-based costing approach, the process of performing variance analysis is consistent. Suppose Jerry's Ice Cream identified three significant activities. Let's see how ABC can be used with variance analysis!

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- 7.8: Fixed Manufacturing Overhead Variance Analysis

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- [Fixed Manufacturing Overhead Variance AnalysisURL](#)

Fixed overhead in the master budget is the same as fixed overhead in the flexible budget because fixed costs do not change with changes in units produced. Fixed manufacturing overhead variance analysis involves two separate variances, the spending variance and the production volume variance. This unit applies this management measure to Jerry's Ice Cream. Calculating the two variances informs management if they are applying enough overhead to the operation.

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- 7.9: Recording Standard Costs and Variances

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- [Recording Standard Costs and VariancesURL](#)

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In this unit, you examined a standard costing system where all inventory accounts reflect standard cost information. The differences between standard and actual data are recorded in variance accounts and the manufacturing overhead account, and are ultimately closed out to cost of goods sold at the end of the accounting period.

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- 7.10: Units 6 and 7 Capstone Project

- This is a comprehensive exercise in master budgeting. Read the instructions and the budgeting case description, and then complete the Master Budget Template in Excel. The Excel workbook includes cues to indicate if you are completing the template correctly. There is a legend on the "Facts" that identifies cells that are inputted, linked, or calculated. When you have completed the Master Budget Case Template, check your work with the solution file.
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-  Master Budget Case Exercise
  -  [BUS105-Unit7-MasterBudgetCase-Instructions.pdf](#)
  -  [BUS105-Unit7-MasterBudgetCase-Solution.xlsx](#)
  -  [BUS105-Unit7-MasterBudgetCase-Template.xlsx](#)

## Unit 8: Capital Budgeting

Now that we understand how businesses create budgets to manage the day-to-day operations of a business, let's focus on how they use capital budgeting to evaluate long-term investments. For example, should a company replace its machinery now, or wait another three years to make a major investment when revenue may be greater and the equipment may cost less? Business managers typically prepare their capital budget process when they create their master budget. They base their decision to choose or reject various projects on the time value of money and discounted cash flows.

### **Completing this unit should take you approximately 5 hours.**

- Upon successful completion of this unit, you will be able to:
  - apply the concept of the time value of money to management decisions;
  - define capital budgeting and capital projects;
  - evaluate investments using the net present value (NPV) approach;
  - evaluate investments using the internal rate of return (IRR) approach;
  - explain the impact of cash flows, qualitative factors, and ethical issues on long-term investment decisions;
  - evaluate investments using the payback method; and
  - explain the impact that income taxes, working capital, and investment cash outflows have on capital budgeting decisions.

- 8.1: Capital Budgeting and Decision-Making

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- [Capital Budgeting and Decision-MakingURL](#)

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Jackson's Quality Copies, a store that makes photocopies for its customers, has several copy machines. The company wants to evaluate the purchase of an expensive new copier that could reduce expenses, increase productivity, and increase profits. It costs \$50,000. The company president, Julie Jackson, has to decide if the new copier is actually a good addition. Managerial accounting methods can give her several tools to evaluate this investment. You use two methods to evaluate long-term investments, both of which consider the time value of money. The first is called the net present value (NPV) method, and the second is called the internal rate of return method. Before you consider these two methods, we will discuss the time value of money (present value).

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- 8.2: Net Present Value and Time Value of Money

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- [Net Present Value and the Time Value of MoneyURL](#)

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NPV combines the present value of all cash flows associated with an investment, both positive (for example, from sales) and negative (from expenses), into one suitable figure for management decision-making. The term discounted cash flows is also used to describe the NPV method. One critical factor in determining the NPV is the discount rate: what time value (forgone interest rate) is associated with future receipts of money.

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- [Time Value of MoneyURL](#)

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The time value of money is vital to understanding the net present value. The time value of money basically states that a dollar received today is worth more than a dollar received in the future.

A hundred dollars given up today is not worth \$100 upon its return in three years because there is an opportunity cost of forgoing the use of that money for those three years. If I invested \$100 this year for three years at an annual rate of 4%, that \$100 would be worth about \$112.33 at the end of year three (given compounding). So, if I were to forgo that \$100 now and receive it in three years, I would want to receive at least \$112.33 at term. Similarly, if someone said they would pay me \$100 in three years, I would not give them \$100 now – the amount they returned to me in three years would be worth less!

For capital budgeting decisions, the issue is how to value future cash flows in today's dollars. The term cash flow refers to the amount of cash received or paid at a specific point in time. The term present value describes the value of future cash flows (both in and out) in today's dollars.

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- 8.3: The Internal Rate of Return

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- [The Internal Rate of ReturnURL](#)

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Using the internal rate of return (IRR) to evaluate investments is similar to using the net present value (NPV) in that both methods consider the time value of money. The IRR represents the time-adjusted rate of return for the investment being considered. The IRR decision rule states that if the IRR is greater than or equal to the company's required rate of return (recall that this is often called the hurdle rate), the investment is accepted; otherwise, the investment is rejected. This method ensures that any capital investments the company makes are at least equal to the existing rate of return on capital or exceed it. The hurdle rate will vary from company to company.

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-  [Mathematics and FinanceFile](#)

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This is an excellent guide to the present value of money and its many applications.

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- 8.4: Other Factors Affecting NPV and IRR Analysis

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- [Other Factors Affecting NPV and IRR AnalysisURL](#)

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Julie Jackson's life would be easier if all she had to do was find a number and use it to make a decision. It would be easy to agree to buy a new copier if the NPV and IRR say yes. Unfortunately, life is seldom as easy as following a formula. Other factors affect what Julie should do. In this section, we will consider some of those factors.

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- 8.5: The Payback Method

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- [The Payback MethodURL](#)

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You hear people talk about the payback period, as in:

"I live in Nevada, where there are 280 bright and sunny days each year. Yes, I am going solar! My payback period is seven years on a domestic hot water system powered by the sun."

The payback period, typically stated in years, is the time it takes to generate enough cash receipts from an investment to cover the cash outflows from the investment. The method uses a simple sum of future earnings/savings over an arbitrary time period to evaluate capital improvements. It is a quick way to look at an investment and sort potential investments, but the payback method is somewhat lacking in rigor.

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- 8.6: Complexities of Estimating Cash Flows

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- [Additional Complexities of Estimating Cash Flows and the Effect of Income Taxes on Capital Budgeting DecisionsURL](#)

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Read sections 8.6 and 8.7. There are three additional items related to estimating cash flows that must be considered:

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1. Investment cash outflows
  2. Working capital
  3. Effect of income taxes
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These two sections will discuss how these considerations affect long-term investment decisions.

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## Unit 9: Performance Evaluation

This unit describes how businesses use managerial accounting to evaluate company performance for the entire company, organizational departments, and individual employees. How do you evaluate the productivity of each division manager in a decentralized company? How well does each division use the company's assets to create profits? Responsibility accounting assumes someone is responsible for every cost the company incurs. It often bases the compensation given to managers on the financial performance of the divisions they manage. We will consider the issues Game Products encounters when it evaluates the performance of three divisional managers who oversee sporting goods, board games, and computer games.

**Completing this unit should take you approximately 3 hours.**

- Upon successful completion of this unit, you will be able to:
    - define decentralized organization and explain advantages and disadvantages of decentralizing;
    - differentiate among the three types of responsibility centers;
    - explain responsibility accounting and why it is useful for a decentralized organization;
    - calculate and interpret segmented net income to evaluate performance;
    - calculate and interpret return on investment (ROI) to evaluate performance; and
    - calculate and interpret residual income (RI) to evaluate performance.
  - 9.1: Control Operations in Decentralized Organizations
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- [Using Decentralized Organizations to Control Operations](#)URL

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Read the introduction and section 11.1. Game Products, Inc. has experienced significant growth in volume, market area, and products. It operates internationally and has three broad product lines that make board games, computer games, and sporting goods. Games Inc. has three distinct marketing areas and three distinct product lines. Management has decided to decentralize its operations and needs to revamp its management information system to

provide relevant and timely information about product lines in different locations. Decentralization has pros and cons.

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- 9.2: Establishing Responsibility Centers

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- [Maintaining Control over Decentralized OrganizationsURL](#)

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Responsibility centers can be based on attributes such as sales regions, product lines, or services offered. In the case of Game Products Inc., there are three responsibility centers based on three product lines. The purpose of establishing responsibility centers within organizations is to hold managers responsible for only the assets, revenues, and costs they can control. The level of control a manager has will help determine the type of responsibility center used for each manager.

With this approach, responsibility centers are allocated budgets, and their revenues and costs (variable and fixed) are tracked. Each center has a responsibility income statement. Responsibility center expenses are allocated to direct variable costs and direct fixed costs. The responsibility center contribution margin is determined by reducing revenue by variable costs. Subtracting allocated fixed costs from the contribution margin yields the responsibility margin.

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- 9.3: Evaluating Investment Centers

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- [Comparing Segmented Income for Investment CentersURL](#)

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The starting point for evaluating investment centers for the president of Games Products Inc. is to review segmented income for each investment center (or division). Segmented income is segment revenues minus segment expenses. She is interested in the level of profit that each of the three divisions generates, and segmented income gives her this information. Still, as you will see, there are limitations to using only this method.

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- [Using Return on Investment \(ROI\) to Evaluate PerformanceURL](#)

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Games Products Inc. will also consider the return on investment (ROI) generated by each division as an evaluative metric. ROI is one of the most common measures of performance for managers responsible for investment centers. ROI is a basic measure, but the way it is calculated can vary between organizations.

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- [Using Residual Income \(RI\) to Evaluate PerformanceURL](#)

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Residual income is another evaluative metric that Games Products Inc. can use. Residual income (RI) provides a measure of income that is available to the whole organization. A manager's goal is to increase her RI from year to year. Most organizations that use RI also use ROI. Using both measures has the benefit of comparing one division to another by using ROI and minimizes the conflict between company goals and division goals by using RI.

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- 9.4: Wrap-Up

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- [Wrap-Up of Game Products Inc.URL](#)

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Mandy Dwyer, the president of Games Products Inc., meets with her management accountant and goes over his work. They choose three metrics to control their decentralized divisional operation: net income, profit margin ratio, and ROI. Their final step is to integrate these performance measures with a compensation plan for their operations managers.

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## Unit 10: Cash Flow Preparation and Use

In this unit, we will explore how companies manage cash flow. Most companies use the revenues they generated yesterday to pay today's and tomorrow's expenses. For example, some companies manage their cash and maintain enough reserves to pay their expenses when they are due. Others must obtain capital loans to pay their bills because they have seasonal sales or experience rapid growth and do not have enough savings to pay for the upfront costs to fund their expansion. While the company's income statement and balance sheet help monitor performance and their current financial condition, neither statement provides information about cash activity during a given time period.

Companies must manage their cash wisely to accommodate this lag time between revenues and expenses, so they can pay their bills in a timely manner. In this unit, we focus on preparing a statement of cash flows, which gives important information about performance measures, cash on hand, and cash needed.

**Completing this unit should take you approximately 7 hours.**

- Upon successful completion of this unit, you will be able to:
  - define the purpose of the statement of cash flows;
  - describe the three categories of cash flows;
  - describe the four steps used to prepare the statement of cash flows;
  - prepare a statement of cash flows using the indirect method;
  - analyze cash flow information; and
  - prepare a statement of cash flows using the direct method.

- 10.1: Purpose of the Statement of Cash Flows

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- [The Purpose of the Statement of Cash FlowsURL](#)

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The statement of cash flows gives cash receipts and cash payment information and reconciles the change in cash for a period of time. Cash receipts and cash payments are summarized and categorized as operating, investing, or financing activities. Simply put, the statement of cash flows indicates where cash came from and where it went for a given period of time. Time is the most important part of cash flow: as in life, timing is everything. Without adequate cash flow, suppliers could refuse to deliver essential inputs and choke off production and revenue

streams. This section also looks at a typical case, where the CEO of Home Store wants to know where the company's money has gone. Home Store is profitable, but there is no money in the bank. You will soon see why this might be.

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- [Cash Flow Statement Background InformationPage](#)

This video provides a rationale for cash flow statements and introduces basic terms.

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- 10.2: The Types of Cash Flows

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- [Three Types of Cash Flow ActivitiesURL](#)

Cash flow is essential. Because of this, it takes many forms and can be measured in numerous ways. This section considers the usual methods of describing cash flow.

**Operating** activities include cash activities related to net income (revenues and expenses are included in net income).

**Investing** includes cash activities related to noncurrent assets. Noncurrent assets include (1) long-term investments; (2) property, plant, and equipment; and (3) the principal amount of loans made to other entities.

**Financing** includes cash activities related to noncurrent liabilities and owners' equity. Noncurrent liabilities and owners' equity items include (1) the principal amount of long-term debt, (2) stock sales and repurchases, and (3) dividend payments.

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- 10.3: Preparation of Cash Flow Statements

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- [Four Key Steps to Preparing the Statement of Cash FlowsURL](#)

The statement of cash flows is based on cash only, and when used for accrual accounting based companies, adjustments must be made to convert accrual basis information to a cash basis. In addition to reconciling the three statement activities (the income statement, balance sheet, and statement of owners' equity), cash flows need to have certain adjustments made to them. One of the main ones is adjusting the statement for non-cash transactions like depreciation. There are four steps to creating a cash flow statement.

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- [Using the Indirect Method to Prepare the Statement of Cash FlowsURL](#)

We now look at Home Store and the CEO's question. Where's the money? The information needed to prepare Home Store's statement of cash flows includes the balance sheet, income statement, and other selected data.

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- [Cash Flow Statement: Indirect MethodPage](#)
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This video walks through the indirect method of preparing a statement of cash flows.

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- [Analyzing Cash Flow InformationURL](#)

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Investing activities focus on the effect that changes in noncurrent assets have on cash. Noncurrent asset balances found on the balance sheet, coupled with other information (like cash proceeds from the sale of equipment), are used to perform this step. The financing activities section focuses on the effect changes in noncurrent liabilities and owners' equity have on cash. Noncurrent liabilities and owners' equity balances found on the balance sheet, coupled with other information (like cash dividends paid), are used to perform this step.

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- [Investing and Financing Sections of Cash Flow StatementsPage](#)

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This video explains how to prepare the investing and financing sections of a cash flow statement.

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- [Using the Direct Method to Prepare the Statement of Cash FlowsURL](#)

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The same four steps apply to preparing a statement of cash flows in both the direct and indirect methods. The only difference is how the operating activities section is presented in step one; all other steps are the same. Although the presentation of the operating activities section differs with each method, the result is the same.

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- [The Direct MethodPage](#)

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This video uses the direct method to prepare a statement of cash flows for Turner Inc. This method yields the same result as the indirect method.

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- 10.4: Cash Flow Analysis

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- [Analyzing Cash Flow InformationURL](#)

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There are many ways to analyze financial statements. Cash flow has two major ratios (the operating cash flow ratio and the capital expenditure ratio) and a "dollar-number" (the free cash flow). These are used to interpret and communicate information about cash flow within the company and make comparisons among companies.

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- [Cash Flow Statement AnalysisPage](#)

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This video finishes the cash flow work on Turner Inc. by doing a rudimentary analysis of the company's cash flow statements.

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## Unit 11: Using Managerial Accounting: Trends and Ratios

This unit examines the three-pronged approach managerial accountants and potential investors typically use to analyze a company's financial information. First, we use trend analysis and common-size analysis to examine trends in the company's financial sphere, such as sales and earnings from one year to the next. Then, we compare the company's financial measures with its main competitors in the industry. Finally, we compare the company's financial ratios with industry-wide averages or standards.

**Completing this unit should take you approximately 7 hours.**

- Upon successful completion of this unit, you will be able to:
  - perform trend analysis to evaluate financial statement information;
  - perform common-size analysis to evaluate financial statement information;
  - use ratio analysis to measure profitability, short-term liquidity, long-term solvency, and market valuation; and
  - develop and analyze non-financial performance measures using a balanced scorecard.

- **11.1: Introduction**

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- [How Do Managers Use Financial and Nonfinancial Performance Measures?URL](#)
- 

Financial stability is an important attribute of how customers, suppliers, stakeholders, and competitors perceive your company. Every company except for privately-held corporations publish annual financial information, and even privately-held corporations can are often asked for their financials. The principles of managerial accounting are used to determine trends and ratios to evaluate the strength of each company's income statement and balance sheet. Trends, common size analysis, and ratio analysis are all used to make comparisons of performance. This chapter will give you a better idea of how financial stability is determined and used for any company.

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- [Financial Statement AnalysisPage](#)
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Financial analysis is an important skill set that integrates everything we have discussed so far in this course. Think about your own skills. Can you do what this video is talking about?

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- **11.2: Trends, Horizontal Analysis**

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- [Trend Analysis of Financial StatementsURL](#)
- 

You have already seen trend analysis in the form of least-squares regression analysis or linear regression analysis in Unit 3. Here, we will look at how relevant variables increase or decrease over time. That movement is used to spot problems like declining profits or decreasing sales. Trend analysis looks for both strengths and weaknesses by separating out one-time events. In doing so, it negates the need for anecdotal evidence and acts as an objective

measure of performance over time (measured year-to-year or for multiple years). This method is also known as horizontal analysis.

- [Horizontal AnalysisPage](#)

Watch this horizontal/trend analysis for Elky Co.

- 11.3: Common-Size, Vertical Analysis

- [Common-Size Analysis of Financial StatementsURL](#)

When you deal with large numbers, it can be difficult to distinguish those numbers' important attributes. With common-size analysis, you reduce numbers to percentages and then compare them. For example, if you have a company that has \$450,000 in profit on sales of \$2,220,000, while another has a profit of only \$375,000 on sales of \$1,500,000, how do you compare these numbers? This is the strength of common-size analysis, also known as vertical analysis.

- [Vertical AnalysisPage](#)

This video shows how a client can compare his financial statements to another company's statements with vertical analysis.

- 11.4: Ratio Analysis

- [Ratio Analysis of Financial InformationURL](#)

The most robust type of analysis is ratio analysis. A ratio is a comparison of two numbers and normally takes the form of a fraction, decimal, or percentage. A ratio can be specific to a company, to companies within a region, to an industry, or to a stock exchange. Ratios are versatile and powerful. This section will show you how to use ratios to explain and compare companies to other companies or industries as a whole.

	<b>Coca Cola</b>	<b>Pepsi Co.</b>	<b>Beverage Industry</b>
Profit margin ratio	34%	11%	20%

There are four basic types of ratios, which are used to measure profitability, short-term liquidity, long-term solvency, and market valuation.

- [Ratio AnalysisPage](#)

These videos examine the financial statements for Squirrel Co. and give several examples of useful ratios.

- 11.5: Chicken Deluxe's Choice

o [Nonfinancial Performance Measures: The Balanced ScorecardURL](#)

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Review the problem Chicken Deluxe had at the beginning of this chapter, and then read sections 13.4 and 13.5. In coming to a management decision, numbers will rarely give an answer on their own. Good CEOs and teams also consider non-financial performance measures when coming to a decision. Notice how similar the process of considering non-financial performance measures is to those of financial performance measures.

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