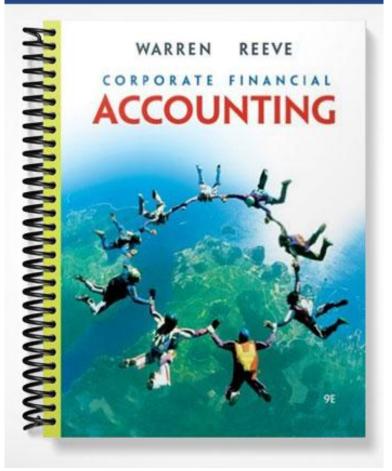
## SOLUTIONS MANUAL



## chapter

# 2

## **Analyzing Transactions**

## **OPENING COMMENTS**

Chapter 2 is the *most* important chapter in the text. It introduces students to the rules of debit and credit, chart of accounts, two-column journals, four-column ledgers, T accounts, and the trial balance. Quite frankly, if students fail to grasp the concepts in this chapter, the first seeds of destruction will be sown for those students who will ultimately withdraw from or fail the course.

Emphasize that Chapter 2 builds the foundation for all that will be learned about accounting principles. Unlike many other college courses, it is impossible to understand Chapter 3 and beyond if the principles of Chapter 2 are not mastered. You need to dispel the false belief that "maybe I'll get the next chapter—even though I'm totally lost now."

Also encourage your students to seek help immediately if they begin to struggle with course content. Make them aware of the resources available at your institution: tutorial services, peer assistance, your office hours, use of Personal Trainer and support services, etc. Too frequently, students wait until after they have failed their first examination to seek help. For those who heed them, these simple suggestions will help students avoid failure.

After studying the chapter, your students should be able to:

- 1. Describe the characteristics of an account and record transactions using a chart of accounts and journal.
- 2. Describe and illustrate the posting of journal entries to accounts.
- 3. Prepare an unadjusted trial balance and explain how it can be used to discover errors.
- 4. Discover and correct errors in recording transactions.

## STUDENT FAQS

- Why does Cash have a debit balance instead of a credit? My bank tells me they are crediting my account when I put money in. This question has to be answered several times until the student realizes that to the bank it is a liability and they are telling the student what they are doing to their books.
- Why is the abbreviation for a debit "Dr" when there is no "r" in the spelling?
- Why can't the normal balances of all the accounts be opposite what they are?
- Who dreamed this accounting system up?
- Who uses these statements, and what do they do with the information?
- What is the difference between journalizing and posting?
- What is the difference between an expense and a liability?
- "Aren't assets and revenue the same? If a business works for someone and gets paid aren't Cash and Revenue exactly the same thing?"
- "Aren't expenses and liabilities the same? If a business gets a utility bill and hasn't paid it yet aren't Utility Expense and Utility Payable exactly the same account?
- "Why do they call it a credit card? Who is crediting what?"
- "I work in a bank and we use debits and credits, but you have them all reversed in the book. The bank where I work does everything exactly the opposite."
- Why can't we just record the transactions directly into the ledger?
- Why are the ledger accounts in a specific order? Why aren't they listed in alphabetic order?
- Why aren't increases (+) always a debit and decreases (-) always a credit? Wouldn't that make more sense?
- Why can't you wait until the end of the month to compute the balance of each account in the ledger? Isn't it a lot of work to recompute a new balance after each posting?
- In business, we say that we need to raise capital to start a business, so why aren't cash and capital the same thing?
- How do I know whether to use wages expense or wages payable?

## **OBJECTIVE 1**

Describe the characteristics of an account and record transactions using a chart of accounts and journal.

#### **KEY TERMS**

Account	Journal
Assets	Journal Entry
Balance of Account	Journalizing
Chart of Accounts	Ledger
Credit	Liabilities
Debit	Stockholders' Equity
Double Entry Accounting	Revenues
Drawing	T Accounts
Expenses	

#### SUGGESTED APPROACH

Remind students that accounts are used to record business transactions. An account is simply a record of all the increases and decreases in a financial statement item (such as cash, supplies, and accounts payable). A group of accounts is called a ledger.

In Chapter 2, the different types of stockholders' equity transactions will be separated and recorded in the following accounts: capital stock, retained earnings, dividends, revenue, and expense accounts. This separation will make it easier to prepare financial statements. TM 2-1 can be used to highlight this.

#### **GROUP LEARNING ACTIVITY—Chart of Accounts**

Objective 1 also introduces a chart of accounts and a flexible system of numbering accounts. Under the text's indexing system, accounts are assigned a two-digit number. The first digit indicates the account's classification (1 = assets, 2 = liabilities, 3 = stockholders' equity, 4 = revenue, and 5 = expenses.) Stress that all enterprises will have the same categories of accounts; however, the account titles used and the number of accounts will vary. You can emphasize this variety by asking students to bring in charts of accounts from businesses where they or a relative work.

TM 2-2 presents information related to the business transactions of Larry Sharp, M.D. Divide students into small groups and ask them to use the information to develop a chart of accounts for Dr. Sharp. Also ask them to assign a number to each account.

This activity will test whether your students can identify the accounts needed to record Dr. Sharp's typical business transactions and apply the concept of a flexible numbering system. The group activity may be assigned before discussing the information related to charts of accounts presented in the text. This will force students to recall some information from their reading assignment and reinforce your expectation that all reading assignments are to be completed prior to classroom discussion.

TM 2-3 presents a suggested chart of accounts that you may want to share with the class after they have completed their group work. Remind them that the chart of accounts is different for every company, reflecting each company's typical business transactions.

You will notice that the suggested solution in TM 2-3 does not include insurance expense or depreciation expense accounts. These accounts, although necessary for preparing adjusting entries, have been omitted since that step in the accounting cycle will not be introduced until Chapter 3.

The first account form introduced in Chapter 2 is the T account. Draw a T account on the board and remind students that the left side will be called the debit or Dr. side and the right side will be called the credit or Cr. side. Each T account has a name as well as a normal balance side.

#### K/A SOFTWARE—Chart of Accounts

K/A general ledger software problems all have Charts of Accounts already designed that students may view when they are working a problem.

#### **INTERNET ACTIVITY—Chart of Accounts**

There are organizations that post recommended charts of accounts on the Internet so your students can see some real-world examples. For example, the American Booksellers Association provides a suggested chart of accounts for its members. They also provide an extensive explanation of why a standard chart of accounts is helpful. The web address is:

http://www.ambook.org/misc/member/scoatext.html

Another standard chart of accounts is provided by North Carolina Schools. Of course, this chart of accounts is set up to facilitate governmental fund accounting, so it may require some explanation. The web address is:

http://www.ncpublicshools.org/fbs/coa

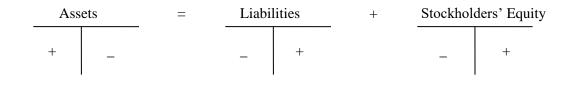
You might also want to encourage your students to search for other suggested charts of accounts.

Learning the rules of debit and credit is one of the first major hurdles for students in accounting principles. Remind students that debit and credit simply represent the left and right sides of an account. The trick is remembering which accounts are increased with debits and which are increased with credits.

#### LECTURE AID—Rules of Debit and Credit

Three approaches to explain the rules of debit and credit follow. You may want to present all methods to your class and encourage each student to use the approach that he or she understands best.

"Mirror Image" Approach: One way to explain the rules of debit and credit is to draw the following equation on the board.



Point out that the rules for increasing and decreasing liabilities and owner's equity accounts are the mirror image of the rules for assets. Therefore, if students can remember the rules for assets, they can deduce the rules for the remaining accounts.

Although this is the most simplistic approach, some students become very confused by the treatment of the dividends and expense accounts. Increases to these accounts are debits, since they reduce stockholders' equity. However, some students want to record expenses and dividends as credits because the schematic has a + sign on the credit side of equity accounts.

"After Eating Dinner" Approach 1: The rules of debit and credit can also be explained with the following saying: After eating dinner, let's read the comics.

Here's how it works.

<u>A</u> fter <u>Eating D</u> inner,	Let's <u>R</u> ead the <u>C</u> omics
Accounts increased	Accounts increased
with a debit:	with a credit:
<u>A</u> ssets	<u>L</u> iabilities
<u>E</u> xpenses	<u>R</u> evenues
<u>D</u> ividends	<u>C</u> apital

"ALICE" Approach 2: The rules of debit and credit can also be explained using the Acronym "ALICE."

List the types of classifications of accounts:

A = Assets L = Liabilities C = Capital (Equity) I = Income (Revenue) E = Expense

Arrange the letters to read "ALICE." Then list normal balances by the side of each.

 $\begin{array}{rrrr} A & = & Dr.\\ L & = & Cr.\\ I & = & Cr.\\ C & = & Cr\\ E & = & Dr. \end{array}$ 

Note that ALICE begins and ends with normal Dr. balance accounts while the three middle classifications are normal Cr. balance accounts

#### **GROUP LEARNING ACTIVITY—Rules of Debit and Credit**

After explaining the rules of debit and credit, it is important to reinforce those concepts with an example.

Remind students that business transactions are initially recorded in a record called a journal. After each entry is journalized, it is posted to the proper account in the ledger. In this group exercise, students will post entries into a T account.

Ask your students to draw the following T accounts on a sheet of paper:

Cash	Capital Stock
Accounts Receivable	Dividends
Supplies	Fees Earned
Stereo Equipment	Wages Expense
Accounts Payable	Advertising Expense

TM 2-4 lists several business transactions. Illustrate the process by recording the first two or three transactions in a journal format and by posting them to the appropriate T account. As you work these examples, emphasize that there is a three-step process in analyzing each entry: (1) determine which accounts are affected, (2) decide whether each account should be increased or decreased, and (3) translate the increase or decrease into a debit or a credit.

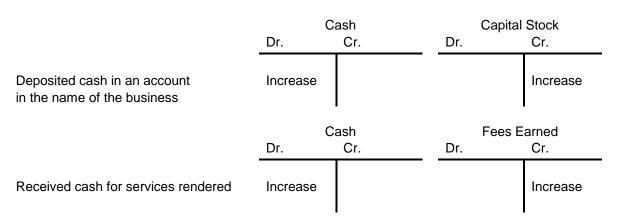
After completing your examples, ask your students to work in small groups to complete the transactions. TM 2-5 presents the solution to this exercise.

#### LECTURE AID—Double Entry Accounting

To help the student understand the effect of Double Entry Accounting, it can be helpful to illustrate examples of some more common transactions, such as the ones below, as you lecture.

#### TRANSACTION

#### AFFECTED ACCOUNTS



	Accounts Receivable Dr. Cr.		Fees Earned Dr. Cr.	
Billed customers on account	Increase			Increase
	C Dr.	cash Cr.	Expense Dr.	Account Cr.
Paid for expenses		Decrease	Increase	
	C Dr.	Cash Cr.	Accounts F Dr.	Receivable Cr.
Received cash on account	Increase		Decrease	
	C Dr.	ash Cr.	Accounts Dr.	Payable Cr.
Paid on account		Decrease	Decrease	
	Su Dr.	pplies Cr.	Accounts Dr.	Payable Cr.
Purchased on account	Increase			Increase
	C Dr.	cash Cr.	Divid Dr.	ends Cr.
Distribution to Stockholders		Decrease	Increase	

#### **IN-CLASS AND HOMEWORK ASSIGNMENT CHART**

Objective 1. Describe the characteristics of an account and record transactions using a chart of accounts and journal.				
PracticeExamplePracticeExercisesOther End-of-ChapterExercises(In-class orActivities				
Key Learning Outcomes	(In-class)	Homework)	(Homework)	
Prepare a chart of accounts for a			EO 1, EX 2-1, EX 2-2, EX 2-3,	
corporation.			SA 2-5	
Prepare journal entries.	2-1, 2-2,	2-1A, 2-1B,	EX 2-13, EX 2-14, EX 2-15,	

	2-3	2-2A, 2-2B, 2-3A, 2-3B	PR 2-2A, PR 2-2B, PR 2-3A, PR 2-3B, PR 2-4A, PR 2-4B, SA 2-2
Record journal entries in T accounts.			EO 7, EX 2-4, EX 2-5, EX 2-7, PR 2-1A, PR 2-1B, Continuing Problem, SA 2-3
List the rules of debit and credit.	2-4	2-4A, 2-4B	EO 2, EO 3, EO 4, EO 5, EX 2-9, SA 2-4
Determine the normal balance for accounts.	2-4	2-4A, 2-4B,	EO 6, EO 15, EX 2-8, EX 2-10, EX 2-11, EX 2-12

## **OBJECTIVE 2**

Describe and illustrate the posting of journal entries to accounts.

#### **KEY TERMS**

Posting Two-Column Journal Unearned Revenue

#### SUGGESTED APPROACH

At this point, it is time to introduce your students to the standard journal and four-column ledger formats. It is interesting to point out that while T accounts are not actually used to record business transactions, accountants frequently use them to analyze complex transactions. In the same way, students will find the T account a useful tool throughout this and future accounting courses.

TM 2-6 shows a series of transactions recorded in a two-column journal. Use this to review the twocolumn journal format with your students. You may want to stress the following format issues:

- 1. Dates: The year is entered only at the top of the date column. The month is entered on the first line of the date column on each page; it is also entered for the first transaction whenever changing to a new month. The date is entered for each transaction.
- 2. Explanations: A brief description of the transaction should be written below the debit and credit account titles. This description may be omitted if the transaction is a normal business occurrence and its nature is obvious from the entry. When calculations are required, they should be noted here.
- 3. Blank Lines: A blank line should separate all transactions in a manual journal to make them easier to read. Computerized systems are normally designed to separate journal entries without special input.

It is also helpful to emphasize the importance of using correct journal entry format of left justifying Debits and indenting Credits by writing the following entry on the board and asking students to identify what is wrong:

Supplies500Cash500

Since the credit in the entry is not indented, it is difficult to identify the debit and the credit. Were supplies purchased using cash or were they sold for cash?

In most computerized systems, the indention of the names of accounts credited is not necessary because Debits and Credits are recorded in separate columns.

#### **DEMONSTRATION PROBLEM**—The Ledger

TM 2-7 is a series of four-column ledger accounts. Use these blank accounts to demonstrate posting of the first three transactions from TM 2-6. As you post the transactions, remind students that a posting reference must be entered in the appropriate columns of both the journal and the ledger. Also emphasize that transactions should be posted carefully to avoid errors. Careless posting may result in a lot of time being wasted trying to find errors. Emphasize that with a software package, posting will usually be done automatically, so there is less chance of making mistakes in Posting.

#### WRITING EXERCISE—The Journal and the Ledger

It is important for students to understand the reason that business transactions are recorded in a journal as the book of original entry and later posted to a ledger. To check their understanding of these concepts, ask them to write a response to the following questions. These questions are also found on TM 2-8.

- 1. Why are business transactions initially recorded in a journal?
- 2. Why are business transactions posted from the journal to a ledger?

#### GROUP LEARNING ACTIVITY—The Journal and the Ledger

This activity presents another method to emphasize the purpose of the journal and the ledger in the accounting process. TM 2-9 lists questions a business owner might ask that can be answered by examining the company's accounting records. Your students' task is to determine which accounting record holds the answer: the journal or the ledger. Answers to this activity are provided on TM 2-10.

#### IN-CLASS AND HOMEWORK ASSIGNMENT CHART

Objective 2. Describe and illustrate the posting of journal entries to accounts.				
	Example Exercises	Practice Exercises (In-class or	Other End-of-Chapter Activities	
Key Learning Outcomes	(In-class)	Homework)	(Homework)	
Post journal entries to a standard account.			PR 2-3A, PR 2-3B, PR 2-4A, PR 2-4B, Continuing Problem	

Post journal entries to a T account.	2-5	2-5A, 2-5B	EX 2-5, EX 2-14, EX 2-15, PR
			2-1A, PR 2-1B, PR 2-2A, PR 2-
			2B, SA 2-5

## **OBJECTIVE 3**

Prepare an unadjusted trial balance and explain how it can be used to discover errors.

#### **KEY TERM**

**Trial Balance** 

#### SUGGESTED APPROACH

Remind students that a trial balance is simply a listing of accounts and their balances. It is used to check the accuracy of posting by testing to see that total debits equal total credits. At this point, students have learned two controls over recording entries in a double-entry accounting system: (1) Debits = Credits and (2) Assets = Liabilities + Equity.

#### **DEMONSTRATION PROBLEM**—Preparing a Trial Balance

To demonstrate how to prepare a trial balance, show TM 2-5 (the T accounts from the group learning activity under Objective 3). Ask your students to work in small groups to complete a trial balance using these account balances. TM 2-11 shows the completed trial balance.

#### **GROUP LEARNING ACTIVITY—Errors in a Trial Balance**

The goal of this activity is to demonstrate the use of a trial balance in detecting errors made while recording journal entries, posting, and computing account balances. TM 2-12 presents journal entries, T accounts, and a trial balance. Several errors have been made in posting the journal entries, and as a result, the trial balance does not balance. Ask your students to work in small groups to uncover the errors and correct the trial balance. TM 2-13 shows the corrected trial balance.

You may want to give your students the following hints to help them detect the errors:

- 1. Re-add the columns of the trial balance to check for math errors. This usually is not a problem with a computerized program.
- 2. Look for accounts with abnormal balances on the trial balance. This usually points to an error.
- 3. Compare account balances on the trial balance with those in the ledger. Watch for omitted accounts or transposition errors.
- 4. Recompute the balance of each account to check for math errors. Again this usually doesn't happen with a computerized program.

5. Trace each posting back to the journal entry to make sure the proper amount was posted. Watch for transposition errors.

You will also want to point out that the trial balance does not catch every possible accounting error. The following errors will not be discovered simply by preparing a trial balance (page 76 of the text). These type of things keep accountants very humble.

- 1. Failing to record a transaction or to post a transaction.
- 2. Recording the same erroneous amount for both the debit and the credit parts of a transaction.
- 3. Recording the same transaction more than once.
- 4. Posting part of a transaction correctly as a debit or credit but to the wrong account.

As an example, ask your class the following question: Would recording an \$800 sale on account as a debit to Cash and credit to Fees Earned cause the columns of a trial balance to be unequal? Answer: No.

#### IN-CLASS AND HOMEWORK ASSIGNMENT CHART

Objective 3. Prepare an unadjusted trial balance and explain how it can be used to discover errors.			
Key Learning Outcomes	Example Exercises (In-class)	Practice Exercises (In-class or Homework)	Other End-of-Chapter Activities (Homework)
Prepare an unadjusted trial balance.	2-6	2-6A, 2-6B	EO 8, EX 2-6, EX 2-16, EX 2- 17, EX 2-18, EX 2-19, EX 2- 20, PR 2-1A, PR 2-1B, PR 2- 2A, PR 2-2B, PR 2-3A, PR 2- 3B, PR 2-4A, PR 2-4B, PR 2- 5A, PR 2-5B, PR 2-6A, PR 2- 6B, Continuing Problem

### **OBJECTIVE 4**

Discover and correct errors in recording transactions.

#### **KEY TERMS**

Materiality Concept Slide Transposition

#### SUGGESTED APPROACH

Briefly introduce your students to transpositions and slides by giving an example of each of these errors. For example, recording an entry for \$678 as \$687 is a transposition; recording an entry for \$120 as \$1200

is a slide. Remind students that if either of these errors has occurred and there are no other errors, the difference between the two columns of a trial balance can be evenly divided by 9.

Exhibit 8 in the text summarizes the procedures for correcting errors. Review these procedures with the class.

You can demonstrate the process used to correct improper postings by using TM 2-12. For example, draw a line through the incorrect postings to the capital and fees earned accounts and write in the correct amounts.

The following group learning activity will give students the opportunity to practice correcting journal entries.

#### **GROUP LEARNING ACTIVITY—Correcting Journal Entries**

TM 2-14 presents several errors in recording journal entries. These incorrect journal entries have been posted. Divide the class into small groups and ask your students to prepare journal entries to correct these errors.

If your students are having trouble with these entries, suggest the following steps:

- 1. In T accounts, record the debit and credit for the incorrect journal entry.
- 2. In T accounts, record what the debit and credit should have been to journalize the entry correctly.
- 3. Determine what entry must be made to bring the accounts from step 1 in line with what they should be according to step 2.

The solution to this exercise is presented in TM 2-15.

#### WRITING EXERCISE—Correcting Errors

The following exercise will allow your students to practice both their communication and criticalthinking skills.

The text emphasizes that all errors are corrected either through a correcting journal entry or by drawing a line through the incorrect title or amount.

Pose the following question to your class and ask them to write their response. (This question also appears on TM 2-16.)

Errors may be corrected either by (1) preparing a correcting journal entry or (2) drawing a line through the incorrect account title or amount and writing in the correct information above the error. Why do you think it is not acceptable to simply erase the error and write in the correction?

The text does not address why accountants do not simply erase mistakes, but you as instructor should. Explain that erasing is not allowed in order to prevent improper changes to accounts and to provide an audit trail thus assuring the integrity of the accounting information. In K/A software, you are allowed at times to go back to an entry or amount and just change account numbers or amounts to make corrections. Commercial accounting software normally has safeguards to prevent changes without leaving an audit trail. The complexity of these safeguards depends on the software itself.

#### **IN-CLASS AND HOMEWORK ASSIGNMENT CHART**

Objective 4. Discover and correct errors in recording transactions.				
	Example	Practice Exercises	Other End-of-Chapter	
	Exercises	(In-class or	Activities	
Key Learning Outcomes	(In-class)	Homework)	(Homework)	
Discover errors in journalizing, posting, or			EO 9, EO 10, EO 11, EO 12,	
preparing the trial balance.			PR 2-5A, PR 2-5B, SA 2-6	
Prepare correcting entries for errors that	2-7	2-7A, 2-7B	EO 13, EO 14, EX 2-21, EX 2-	
have been journalized and posted.			22	

## **ETHICS**

#### **IN-CLASS AND HOMEWORK ASSIGNMENT CHART**

Ethics			
		Practice	
	Example	Exercises	Other End-of-Chapter
	Exercises	(In-class or	Activities
Key Learning Outcomes	(In-class)	Homework)	(Homework)
			SA 2-1