Chapter 2

**Analyzing Transactions: The Accounting Equation**

### **Learning Objectives**

**LO1** Define the accounting elements.

**LO2** Construct the accounting equation.

**LO3** Analyze business transactions.

**LO4** Show the effects of business transactions on the accounting equation.

**LO5** Prepare and describe the purposes of a simple income statement, statement of owner’s equity, and balance sheet.

**LO6** Define the three basic phases of the accounting process.

## Teaching Tips

* The definitions for the accounting elements are very important. Often students find memorizing definitions to be boring. Be sure to spend sufficient class time to ensure a solid understanding of these definitions. throughout the course, students should be expected to identify the accounting elements represented by the accounts used in transactions.
* Now would be a good time to point out to your students that, at the end of this chapter and all subsequent chapters, there is a fully worked-out demonstration problem, which will aid them in completing and understanding their assignments.

#### LO1

1. The Accounting Elements
   1. A **business entity** is an individual, association, or organization that engages in economic activities and controls specific economic resources.
   2. **Assets**
      1. Items owned by the business entity and will provide future benefits.
      2. Cash, merchandise, fixtures, machinery, buildings, and land are examples of assets.
      3. **Accounts receivable**—money owed to the business by its customers “on account” or “on credit”
   3. **Liabilities**
      1. amounts owed to another business entity.
      2. **Accounts payable~~⎯~~** an unwritten promise to pay a supplier for assets.
      3. **Notes payable**~~⎯~~ a formal written promise to pay a supplier or lender.
   4. **Owner’s Equity**
      1. The amount by which all business assets exceed the business liabilities.
      2. Also called **net worth** and/or **capital.**
      3. The owner may have business assets/liabilities and nonbusiness assets/liabilities. According to the **business entity concept,** nonbusiness assets/liabilities must not be included in the business entity’s accounting records.

**In-Class Exercise:** Complete Exercises E2-1A, E2-1B(5 minutes each)

# LO2

1. The **Accounting Equation**

##### Assets = Liabilities + Owner’s Equity

## Teaching Tip

* The left side of the equation represents the assets. The right side of the equation shows where the money came from to buy the assets. When two elements are known, the third can always be calculated.

**In-Class Exercise:** Complete Exercises E2-2A, E2-2B(5 minutes each)

**In-Class Exercise:** Complete Problems P2-8A, P2-8B (5 minutes each)

# LO3

1. Analyzing Business Transactions
   1. A **business transaction** is an economic event; an event measured in dollars and has a direct impact on the business.
   2. All transactions affect at least two **accounts,** which are separate records used to summarize changes in each asset, liability, and owner’s equity of the business.
   3. **Account titles** provide a description of each type of account.
   4. Three basic questions must be answered for each transaction:
      1. What happened?
      2. Which accounts are affected?
         1. Identify the accounts.
         2. Classify the accounts.
      3. How is the accounting equation affected?
         1. Determine which accounts increased or decreased.
         2. Ensure the accounting equation remains balanced.

# LO4

## Teaching Tip

* At the end of this Learning Objective (**LO4**), **Figure 2-1** **Summary of Transactions Illustrated** can be used by students to see how the following transactions fit into the “big picture” on a step-by-step basis.

IV. Summary of Transactions Illustrated **(See Figure 2-1)**

Effect of Transactions on the Accounting Equation

##### Transaction (a): Investment by owner

* 1. An increase in an asset (Cash) is offset by an increase in owner’s equity (Rohan Macsen, Capital).

## Teaching Tip

* Remember, Capital does not mean Cash. The cash is shown in the cash account.

##### Transaction(b): Purchase of an asset for cash

* + 1. An increase in an asset (Delivery Equipment) is offset by a decrease in another asset (Cash).

## Teaching Tip

* Students often think that both sides of the accounting equation must be affected by a transaction. Point out that this is not true.

##### Transaction (c): Purchase of an asset on account

* + 1. An increase in an asset (Delivery Equipment) is offset by an increase in a liability (Accounts Payable).

## Teaching Tip

* Many students find Accounts Payable and Accounts Receivable and payments on those accounts confusing. It may be advisable to spend extra time explaining what “payment on account” means. One idea is to stress that whatever purchase or sale created the liability or receivable **was in the past**. The transaction has been completed. Accounts Receivable refers to a transaction between the business and its customers and Accounts Payable refers to a transaction between a vendor/creditor and the business.
  1. Transaction (d): Payment on a loan
     1. A decrease in an asset (Cash) is offset by a decrease in a liability (Accounts Payable).

**In-Class Exercise:** Complete Exercises E2-3A, E2-3B (10 minutes each)

V. Expanding the Accounting Equation: Revenue, Expenses, and Withdrawals

##### **Revenues**

* + 1. The amount charged to customers for goods and services.
    2. Separate revenue accounts may be used.
    3. Revenues increase both assets and owner’s equity.

## Teaching Tip

* Revenue is not Cash. Revenue is recorded when earned through the sale of a product or providing a service. If cash is received as a result, the cash account is increased. If not, another asset, Accounts Receivable, is increased.

##### B. **Expenses**

* + 1. Created as a result of business operating activities that involve selling a product or providing services.
    2. Expenses either decrease assets or increase liabilities.
    3. Expenses reduce owner’s equity.

## Teaching Tips

* Students often confuse expenses and liabilities. Reinforce the definitions. An expense is the outflow of resources (decrease in assets or increase in liabilities) as a result of efforts made to produce revenues. The main purposes of recognizing an expense are to keep track of the amount and types of expenses incurred and to show the reduction in owner’s equity. Note that an expense *can cause* a reduction in assets *or* an increase in liabilities. Wages earned by employees is a good example. If paid, the expense reduces an asset, Cash. If not paid, it increases a liability, Wages Payable.
* Students often think that the expense account should be decreased when expenses are incurred. Stress that each time an expense is incurred, it is recorded and added to the previous amount so that total expenses can be determined.

4. **Net income** or **net loss**

* + - 1. If revenues are greater than expenses, the business has a net income.
      2. If revenues are less than expenses, the business has a net loss.

5. **Fiscal year**

* + - 1. The concept that income determination can be made on a periodic basis is the **accounting period concept.**
      2. Any accounting period for 12 consecutive months for which business records are kept; generally coinciding with a calendar year.

C. **Withdrawals** or **Drawing**

* + 1. Amounts taken from the business by the owner for personal use.
    2. Withdrawals reduce assets.
    3. Withdrawals reduce owner’s equity.
    4. Effect of Revenue, Expense, and Withdrawal Transactions on the Accounting Equation

1. Transaction (e): Delivery revenues earned in cash
   1. An increase in an asset (Cash) is offset by an increase in owner’s equity resulting from an increase in the revenue account (Delivery Fees).
2. Transaction (f): Paid rent for month
3. A decrease in an asset (Cash) is offset by a decrease in owner’s equity resulting from an increase in an expense account (Rent Expense).

## Teaching Tip

* Students often think that expenses and drawing should have minus signs. Point out that as these items increase, owner’s equity decreases.

1. Transaction (g): Paid phone bill
2. A decrease in an asset (Cash) is offset by a decrease in owner’s equity resulting from an increase in an expense account (Phone Expense).

##### D. Transaction (h): Delivery revenues earned on account

1. An increase in an asset (Accounts Receivable) is offset by an increase in owner’s equity resulting from an increase in the revenue account (Delivery Fees).

##### E. Transaction (i): Purchase of supplies

1. An increase in an asset (Supplies) is offset by a decrease in an asset (Cash).

F. Transaction (j): Payment of insurance premium

1. An increase in an asset (Prepaid Insurance) is offset by a decrease in an asset (Cash).

## Teaching Tip

* If you think that the students are ready, you might mention that supplies and insurance used (expired) during this accounting period will be recognized as expenses. These “adjustments” will be discussed later.

G. Transaction (k): Cash receipts from prior sales on account

1. An increase in an asset (Cash) is offset by a decrease in an asset (Accounts Receivable).

2. The accounting equation in unchanged, an asset, cash, increases and another, accounts receivable, decreases in an equal amount.

H. Transaction (l): Purchase of an asset on account making a partial payment

1. An increase in an asset (Equipment) is offset by a decrease in an asset (Cash) and an increase in a liability (Accounts Payable).

I. Transaction (m): Payment of wages

1. A decrease in an asset (Cash) is offset by a decrease in owner’s equity resulting from an increase in an expense account (Wages Expense).

J. Transaction (n): Deliveries made for cash and on account

1. An increase in two assets (Cash and Accounts Receivable) is offset by an increase in owner’s equity from an increase in a revenue account (Delivery Fees).

K. Transaction (o): Withdrawal of cash from business

1. A decrease in an asset (Cash) is offset by a decrease in owner’s equity (Rohan Macsen, Drawing) resulting from a withdrawal by the owner.

## Teaching Tip

* Point out that the owner does not receive a salary from the business. Cash or other assets are withdrawn to meet living expenses. The amount withdrawn depends on the personal needs of the owner. This amount may be more or less than net income in any given year.

**In-Class Exercise:** Complete Exercises E2-4A, E2-4B (20 minutes each)

**In-Class Exercise:** Complete Problems P2-9A, P2-9B(5 minutes each)

# LO5

* + 1. Financial Statements

## Teaching Tip

* It may be helpful to tell students that the headings to the financial statements answer three questions: Who? What? When?
  + 1. The **Income Statement (See Figure 2-2)**

1. Sometimes called the **profit and loss statement** or **operating statement.**

2. Reports the profitability of a business for a specific time period.

3. Revenue – Expenses = Net Income or Net Loss.

**In-Class Exercise:** Complete Problems P2-10A, P2-10B(10 minutes each)

B.The **Statement of Owner’s Equity (See Figure 2-2)**

1. Reports the activities in the owner’s equity for a specific time period.

2. Investments and Net Income increase capital.

3. Withdrawals and Net Losses decrease capital. **(See Figure 2-3)**

**In-Class Exercise:** Complete Exercises E2-6A, E2-6B (10 minutes each)

**In-Class Exercise:** Complete Exercises E2-7A, E2-7B(10 minutes each)

**In-Class Exercise:** Complete Problems P2-11A, P2-11B(15 minutes each)

C. The **Balance Sheet** **(See Figure 2-2)**

1. Reports the assets, liabilities, and owner’s equity on a specific date.

2. Sometimes called a **statement of financial position** or **statement of financial condition.**

3. Assets = Liabilities + Owner’s Equity

**In-Class Exercise:** Complete Problems P2-12A, P2-12B (10 minutes each)

D. Guidelines for preparing financial Statements

1. Standard formats should be used.

2. Headings should be used on all statements.

3. Single underlines should be used to add or subtract numbers above the line; double underlines indicate a total.

4. Dollar signs are used at the top of columns and beneath single (subtotal) underlines.

5. Expenses may be listed from highest to lowest dollar amount.

6. Assets are listed from most liquid to least liquid.

7. Liabilities are listed from most current to the least current.

**In-Class Exercise:** Complete Exercises E2-5A, E2-5B(10 minutes each)

# LO6

VIII. Overview of the Accounting Process **(See Figure 2-4)**

A. **Input.** Business transactions provide the necessary information for input.

B. **Processing.** Recognizing the effect of transactions on the assets, liabilities, owner’s equity, revenues, and expenses of a business.

C. **Output.** Recording the processed information on financial statements.

**Learning Activities**

1. Ask students to talk with the manager of a small business to identify the types of expenses in the business.

2. Students should be able to identify the difference between the six different types of accounts. classifying accounts correctly in these early chapters is a must. the instructor should ask the students to give numerous examples of the types of accounts. Find out if the students know the difference between an asset and an expense. Ask the students to explain the difference between Accounts Payable and Accounts Receivable. Have them explain the effect of a “payment on account” by the business and by a customer.

**Critical Thinking Activity**

Mark Hahn invested $26,000 in cash to open a law office on April 28 of the current year. On April 29, he purchased office equipment for $10,800. He paid cash for all but $1,550 of the office equipment. On April 30, Mark paid $1,200 for six months’ insurance for his law practice. mark wants to know the financial condition of his business as of April 30.

**Solution**

Mark Hahn, Attorney at Law

Balance Sheet

April 30, 20--

**Assets** **Liabilities**

Cash $15,550 Accounts Payable $ 1,550

Prepaid Insurance 1,200 **Owner’s Equity**

Office Equipment 10,800 Mark Hahn, Capital $26,000

Total Assets $27,550 Total Liabilities and Owner’s Equity $27,550

**Homework Suggestions**

**LO1** Study Guide Review Questions 2, 3, 4, 5, 7; End of Chapter Review Question 1, 2

**LO2** Study Guide Review Questions 1, 6, 8, 9, 10; Study Guide Exercises 1, 4, 5; Study Guide Problem 12

**LO3** End of Chapter Review Question 3

**LO4** Study Guide Review Questions 11, 12, 13, 14, 15; Study Guide Exercises 2, 6, 7, 8; Study Guide Problem 13; End of Chapter Review Question 2

**LO5** Study Guide Review Questions 16, 17, 18, 19; Study Guide Exercises 3, 9, 10, 11; Study Guide Problems 14, 15, 16, 17; End of Chapter Review Questions 4, 5, 6

### **LO6** End of Chapter Review Question 7

**Entire Chapter:**

Managing Your Writing, Mastery Problem, and Challenge Problem

**Ten Questions Your Students Will Always Ask**

1. Can people be an asset?

2. Can an asset be something you cannot touch or see?

3. Is a lease you are obligated to pay a liability?

4. Do you always use two or more accounts in a journal entry?

5. Is capital the same as cash?

6. Shouldn’t liabilities be subtracted?

7. How do we keep track of different receipts of cash from different people who owe us?

8. Whom do we ask if we don’t understand what a particular transaction means?

9. Do all businesses use these formal statements?

10. Isn’t this an unwieldy approach to keeping track of transactions?