

**Cash Basis Accounting**  
Accounting method that records revenues only when cash is received and expenses only when cash is paid.

**Accrual Basis Accounting**  
Accounting method that records revenues when earned and expenses when incurred.

**Learning Objective 1**  
Differentiate between cash basis accounting and accrual basis accounting



If cash basis accounting is not allowed by GAAP, why would a business choose to use this method?

In **Chapter 1**, we introduced you to the accounting equation and the financial statements. In **Chapter 2**, you learned about T-accounts, debits, credits, and the trial balance. But have you captured all the transactions for a particular period? Not yet.

In this chapter, we continue our exploration of the accounting cycle by learning how to update the accounts at the end of the period. This process is called adjusting the books, and it requires special journal entries called *adjusting entries*. For example, you learn how, at the end of a particular period, you must determine how many office supplies you have used and how much you owe your employees—and make adjusting entries to account for these amounts. These are just some of the adjusting entries you need to make before you can see the complete picture of how well your company performed during a period of time.

## WHAT IS THE DIFFERENCE BETWEEN CASH BASIS ACCOUNTING AND ACCRUAL BASIS ACCOUNTING?

There are two ways to record transactions—cash basis accounting or accrual basis accounting.

- **Cash basis accounting** records only transactions with cash: cash receipts and cash payments. When cash is received, revenues are recorded. When cash is paid, expenses are recorded. As a result, revenues are recorded only when cash is received and expenses are recorded only when cash is paid. The cash basis of accounting is not allowed under Generally Accepted Accounting Principles (GAAP); however, small businesses will sometimes use this method. **The cash method is an easier accounting method to follow because it generally requires less knowledge of accounting concepts and principles. The cash basis accounting method also does a good job of tracking a business's cash flow.**
- **Accrual basis accounting** records the effect of each transaction as it occurs—that is, revenues are recorded when earned and expenses are recorded when incurred. Most businesses use the accrual basis as covered in this book. The accrual basis of accounting provides a better picture of a business's revenues and expenses. It records revenue only when it has been earned and expenses only when they have been incurred. Under accrual basis accounting, it is irrelevant when cash is received or paid.

**Example:** Suppose on May 1, Smart Touch Learning paid \$1,200 for insurance for the next six months (\$200 per month). This prepayment represents insurance coverage for May through October. Under the cash basis method, Smart Touch Learning would record Insurance Expense of \$1,200 on May 1. This is because the cash basis method records an expense when cash is paid. Alternatively, accrual basis accounting requires the company to prorate the expense. Smart Touch Learning would record a \$200 expense every month from May through October. This is illustrated as follows:

	Cash basis		Accrual basis	
<b>Cash Payment Made</b>	May 1:	\$ 1,200	May 1:	\$ 1,200
<b>Expense Recorded</b>	May 1:	\$ 1,200	May 31:	\$ 200
			June 30:	200
			July 31:	200
			August 31:	200
			September 30:	200
			October 31:	200
<b>Total Expense Recorded</b>		<u>\$ 1,200</u>		<u>\$ 1,200</u>

Now let's see how the cash basis and the accrual basis methods account for revenues.

**Example:** Suppose on April 30, Smart Touch Learning received \$600 for services to be performed for the next six months (May through October). Under the cash basis method, Smart Touch Learning would record \$600 of revenue when the cash is received on April 30. The accrual basis method, though, requires the revenue to be recorded only when it is earned. Smart Touch Learning would record \$100 of revenue each month for the next six months beginning in May.

	Cash basis		Accrual basis	
<b>Cash Received</b>	April 30:	\$ 600	April 30:	\$ 600
<b>Revenue Recorded</b>	April 30:	\$ 600	May 31:	\$ 100
			June 30:	100
			July 31:	100
			August 31:	100
			September 30:	100
			October 31:	100
<b>Total Revenue Recorded</b>		<u>\$ 600</u>		<u>\$ 600</u>

Notice that under both methods, cash basis and accrual basis, the total amount of revenues and expenses recorded by October 31 was the same. The major difference between a cash basis accounting system and an accrual basis accounting system is the timing of recording the revenue or expense.

## WHAT CONCEPTS AND PRINCIPLES APPLY TO ACCRUAL BASIS ACCOUNTING?

### Learning Objective 2

Define and apply the time period concept, revenue recognition, and matching principles.

#### Time Period Concept

Assumes that a business's activities can be sliced into small time segments and that financial statements can be prepared for specific periods, such as a month, quarter, or year.

#### Fiscal Year

An accounting year of any 12 consecutive months that may or may not coincide with the calendar year.

#### Revenue Recognition Principle

Requires companies to record revenue when it has been earned and determines the amount of revenue to record.

As we have seen, the timing and recognition of revenues and expenses are the key differences between the cash basis and accrual basis methods of accounting. These differences can be explained by understanding the time period concept and the revenue recognition and matching principles.

### The Time Period Concept

Smart Touch Learning will know with 100% certainty how well it has operated only if the company sells all of its assets, pays all of its liabilities, and gives any leftover cash to its owner. For obvious reasons, it is not practical to measure income this way. Because businesses need periodic reports on their affairs, the **time period concept** assumes that a business's activities can be sliced into small time segments and that financial statements can be prepared for specific periods, such as a month, quarter, or year.

The basic accounting period is one year, and most businesses prepare annual financial statements. The 12-month accounting period used for the annual financial statements is called a **fiscal year**. For most companies, the annual accounting period is the calendar year, from January 1 through December 31. Other companies use a fiscal year that ends on a date other than December 31. The year-end date is usually the low point in business activity for the year. Retailers are a notable example. For instance, Wal-Mart Stores, Inc., and J. C. Penney Company, Inc., use a fiscal year that ends around January 31 because the low point of their business activity comes about a month after the holidays.

### The Revenue Recognition Principle

The **revenue recognition principle** tells accountants the following things:

- *When* to record revenue—that is, when to make a journal entry for revenue
- The *amount* of revenue to record

#### When to Record Revenue

The revenue recognition principle requires companies to record revenue when it has been earned—but not before. Revenue has been earned when the business has delivered a good

or service to the customer, not necessarily when the business receives the cash from the customer. The earnings process is complete when the company has done everything required by the sale agreement regardless of whether cash is received.

### The Amount of Revenue to Record

Revenue is recorded for the actual selling price of the item or service transferred to the customer. Suppose that in order to obtain a new client, Smart Touch Learning performs e-learning services for the discounted price of \$100. Ordinarily, the business would have charged \$200 for this service. How much revenue should the business record? Smart Touch Learning charged only \$100, so the business records \$100 of revenue.

### The Matching Principle

The **matching principle** (sometimes called the *expense recognition principle*) guides accounting for expenses and ensures the following:

- All expenses are recorded when they are incurred during the period.
- Expenses are matched against the revenues of the period.

To match expenses against revenues means to subtract expenses incurred during one month from revenues earned during that same month. The goal is to compute an accurate net income or net loss for the time period.

There is a natural link between some expenses and revenues. For example, Smart Touch Learning pays a commission to the employee who sells the e-learning company's services. The commission expense is directly related to the e-learning company's revenue earned. Other expenses are not so easy to link to revenues. For example, Smart Touch Learning's monthly rent expense occurs regardless of the revenues earned that month. The matching principle tells us to identify those expenses with a particular period, such as a month or a year, when the related revenue occurred. The business will record rent expense each month based on the rental agreement.

### Matching Principle

Guides accounting for expenses, ensures that all expenses are recorded when they are incurred during the period, and matches those expenses against the revenues of the period.



## WHAT ARE ADJUSTING ENTRIES, AND HOW DO WE RECORD THEM?

The end-of-period process begins with the trial balance, which you learned how to prepare in the previous chapter. **Exhibit 3-1** is the unadjusted trial balance of Smart Touch Learning at December 31, 2016.

**Exhibit 3-1** | Unadjusted Trial Balance

SMART TOUCH LEARNING Unadjusted Trial Balance December 31, 2016		
Account Title	Balance	
	Debit	Credit
Cash	\$ 12,200	
Accounts Receivable	1,000	
Office Supplies	500	
Prepaid Rent	3,000	
Furniture	18,000	
Building	60,000	
Land	20,000	
Accounts Payable		\$ 200
Utilities Payable		100
Unearned Revenue		600
Notes Payable		60,000
Bright, Capital		48,000
Bright, Withdrawals	5,000	
Service Revenue		16,500
Rent Expense	2,000	
Salaries Expense	3,600	
Utilities Expense	100	
Total	<u>\$ 125,400</u>	<u>\$ 125,400</u>

This *unadjusted trial balance* lists the revenues and expenses of the e-learning company for November and December. But these amounts are incomplete because they omit various revenue and expense transactions. Accrual basis accounting requires the business to review the unadjusted trial balance and determine whether any additional revenues and expenses need to be recorded. Are there revenues that Smart Touch Learning has earned that haven't been recorded yet? Are there expenses that have occurred that haven't been journalized?

For example, consider the Office Supplies account in Exhibit 3-1. Smart Touch Learning uses office supplies during the two months. This reduces the office supplies on hand (an asset) and creates an expense (Supplies Expense). It is a waste of time to record Supplies Expense every time office supplies are used. But by December 31, enough of the \$500 of Office Supplies on the unadjusted trial balance (Exhibit 3-1) have probably been used that we need to adjust the Office Supplies account. This is an example of why we need to adjust some accounts at the end of the accounting period.

An **adjusting entry** is completed at the end of the accounting period and records revenues to the period in which they are earned and expenses to the period in which they occur. Adjusting entries also update the asset and liability accounts. Adjustments are needed to properly measure several items such as:

1. Net income (loss) on the income statement
2. Assets and liabilities on the balance sheet

There are two basic categories of adjusting entries: *deferrals* and *accruals*. In a deferral adjustment, the cash payment occurs before an expense is incurred or the cash receipt occurs before the revenue is earned. Deferrals defer the recognition of revenue or expense to a date after the cash is received or paid. Accrual adjustments are the opposite. An accrual records an expense before the cash is paid, or it records the revenue before the cash is received.

The two basic categories of adjusting entries can be further separated into four types:

1. Deferred expenses (deferral)
2. Deferred revenues (deferral)
3. Accrued expenses (accrual)
4. Accrued revenues (accrual)

The focus of this chapter is on learning how to account for these four types of adjusting entries.

## Deferred Expenses

**Deferred expenses**, also called prepaid expenses, are advance payments of future expenses. They are deferrals because the expense is not recognized at the time of payment but deferred until they are used up. Such payments are considered assets rather than expenses until they are used up. When the prepayment is used up, the used portion of the asset becomes an expense via an adjusting entry.

### Prepaid Rent

Remember Transaction 10 in Chapter 2? Smart Touch Learning prepaid three months' office rent of \$3,000 (\$1,000 per month  $\times$  3 months) on December 1, 2016. The entry to record the payment was as follows:

Date	Accounts and Explanation	Debit	Credit
Dec. 1	Prepaid Rent	3,000	
	Cash		3,000
	<i>Paid rent in advance.</i>		

### Adjusting Entry

An entry made at the end of the accounting period that is used to record revenues to the period in which they are earned and expenses to the period in which they occur.

### Deferred Expense

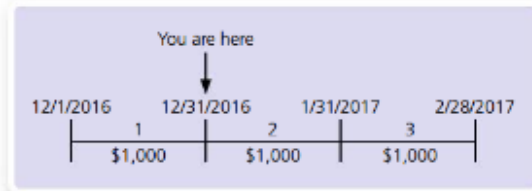
An asset created when a business makes advance payments of future expenses.

<b>A</b> ↑↓	}	=	{	<b>L</b>	+	<b>E</b>
Prepaid						
Rent↑						
Cash↓						

After posting, Prepaid Rent has a \$3,000 debit balance.

Prepaid Rent	
Dec. 1	3,000

Throughout December, Prepaid Rent maintains this balance. But \$3,000 is *not* the amount of Prepaid Rent for the balance sheet at December 31. Why?



As of December 31, Prepaid Rent should be decreased for the amount that has been used up. The used-up portion is one month of the three months prepaid, or one-third of the prepayment. Recall that an asset that has expired is an *expense*. The adjusting entry transfers \$1,000 ( $\$3,000 \times 1/3$ ) from Prepaid Rent to Rent Expense. The adjusting entry is as follows:

$$\begin{array}{c} \text{A} \downarrow \\ \text{Prepaid} \\ \text{Rent} \downarrow \end{array} = \begin{array}{c} \text{L} \\ + \\ \text{E} \downarrow \\ \text{Rent} \\ \text{Expense} \uparrow \end{array}$$

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Rent Expense	1,000	
	Prepaid Rent		1,000
	<i>To record rent expense.</i>		

After posting, Prepaid Rent and Rent Expense show correct ending balances:

Prepaid Rent			Rent Expense		
Dec. 1	3,000	1,000	Dec. 31	Nov. 15	2,000
				Dec. 31	1,000
Bal.	2,000		Bal.	3,000	

Prepaid Rent is an example of an asset that was overstated prior to journalizing and posting the adjusting entry. Notice that the ending balance in Prepaid Rent is now \$2,000. Because Prepaid Rent is an asset account for Smart Touch Learning, it should contain only two more months of rent on December 31 (for January and February). So we have \$1,000 rent per month times two months equals the \$2,000 Prepaid Rent balance.

If Smart Touch Learning had prepaid insurance, the same type of analysis would apply to the prepayment of three months of insurance. The only difference is in the account titles. Prepaid Insurance would be used instead of Prepaid Rent, and Insurance Expense would be used instead of Rent Expense.

### Office Supplies

Office supplies are also accounted for as prepaid expenses. Let's look at another example. On November 3, Smart Touch Learning purchased \$500 of office supplies on account.

The December 31 unadjusted trial balance, therefore, still lists Office Supplies with a \$500 debit balance. But Smart Touch Learning's December 31 balance sheet should *not* report office supplies of \$500. Why not?

During November and December, the e-learning company used office supplies to conduct business. The cost of the supplies used becomes *Supplies Expense*. To measure Supplies Expense, the business first counts the office supplies on hand at the end of December. This is the amount of the asset still owned by the business. Assume that office supplies costing \$100 remain on December 31. Then the business uses the Office Supplies T-account to determine the value of the supplies that were used:

Office Supplies			
Nov. 3	500	?	
Bal.	100		

Amount of office supplies remaining → (points to 100)  
 Amount of office supplies used = Supplies Expense ← (points to ?)

So, we can solve for the office supplies used as follows:

$$\begin{aligned} \text{Office Supplies Balance before Adjustment} - \text{Office Supplies Used} &= \text{Office Supplies on Hand} \\ \$500 - \text{Office Supplies Used} &= \$100 \\ \text{Office Supplies Used} &= \$400 \end{aligned}$$

The December 31 adjusting entry updates Office Supplies and records Supplies Expense for November and December as follows:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Supplies Expense	400	
	Office Supplies		400
	<i>To record office supplies used.</i>		

$$\begin{array}{c} \text{A} \downarrow \\ \text{Office Supplies} \downarrow \end{array} = \left\{ \begin{array}{c} \text{L} \\ \text{Supplies Expense} \uparrow \end{array} \right. + \left\{ \begin{array}{c} \text{E} \downarrow \\ \text{Supplies Expense} \uparrow \end{array} \right.$$

After posting the adjusting entry, the December 31 balance of Office Supplies is correctly reflected as \$100 and the Supplies Expense is correctly reflected as \$400.

Office Supplies			
Nov. 3	500	400	Dec. 31
Bal.	100		

→

Supplies Expense	
Dec. 31	400
Bal.	400

The Office Supplies account then enters January with a \$100 balance. If the adjusting entry for Office Supplies had not been recorded, the asset would have been overstated and Supplies Expense would have been understated. In making the adjusting entry, the correct balance of Office Supplies, \$100, is now reported on the balance sheet as of December 31 and the income statement is correctly reporting an expense of \$400.

## Depreciation

**Plant assets** are long-lived, tangible assets used in the operation of a business. Examples include land, buildings, equipment, furniture, and automobiles. As a business uses these assets, their value and usefulness decline. The decline in usefulness of a plant asset is an expense, and accountants systematically spread the asset's cost over its useful life. The allocation of a plant

### Plant Asset

Long-lived, tangible asset, such as land, buildings, and equipment, used in the operation of a business.



### Depreciation

The process by which businesses spread the allocation of a plant asset's cost over its useful life.

asset's cost over its useful life is called **depreciation**. For example, a business might pay cash for an automobile when purchased, but the automobile will last for years, so depreciation allocates the cost spent on the car over the time the business uses the car. All plant assets are depreciated, with the exception of land. We record no depreciation for land because, unlike buildings and equipment, it does not have a definitive or clearly estimable useful life, so it is difficult to allocate the cost of land.

**Similarity to Prepaid Expenses** The concept of accounting for plant assets is similar to that of prepaid expenses. The major difference is the length of time it takes for the asset to be used up. Prepaid expenses usually expire within a year, but plant assets remain useful for several years. As a business uses its plant assets, an adjusting entry is required to allocate the assets' costs. The adjusting entry records the cost allocation to an expense account called Depreciation Expense.

Let's review an example for Smart Touch Learning. On December 2, the business received a contribution of furniture with a market value of \$18,000 from Sheena Bright. In exchange, Smart Touch Learning gave capital to Bright and made the following journal entry:

$$\begin{array}{c} \text{A} \uparrow \\ \text{Furniture} \uparrow \end{array} = \begin{array}{c} \text{L} \\ + \\ \text{E} \uparrow \\ \text{Bright} \\ \text{Capital} \uparrow \end{array}$$

Date	Accounts and Explanation	Debit	Credit
Dec. 2	Furniture	18,000	
	Bright, Capital		18,000
	Owner contribution of furniture.		

After posting, the Furniture account has an \$18,000 balance:

Furniture	
Dec. 2	18,000

Smart Touch Learning believes the furniture will remain useful for five years, and at the end of five years, Smart Touch Learning believes the furniture will be worthless. The expected value of a depreciable asset at the end of its useful life is called the **residual value**. Smart Touch Learning will use the straight-line method to compute the amount of depreciation. The **straight-line method** allocates an equal amount of depreciation each year and is calculated as:

$$\text{Straight-line depreciation} = (\text{Cost} - \text{Residual value}) / \text{Useful life}$$

Smart Touch Learning will calculate the depreciation of the furniture for the month of December as:

$$\begin{aligned} \text{Straight-line depreciation} &= (\text{Cost} - \text{Residual value}) / \text{Useful life} \\ &= (\$18,000 - \$0) / 5 \text{ years} \\ &= \$3,600 \text{ per year} / 12 \text{ months} = \$300 \text{ per month} \end{aligned}$$

### Residual Value

The expected value of a depreciable asset at the end of its useful life.

### Straight-Line Method

A depreciation method that allocates an equal amount of depreciation each year.  
(Cost - Residual value) / Useful life.

Depreciation expense for December is recorded by the following adjusting entry:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Depreciation Expense—Furniture	300	
	Accumulated Depreciation—Furniture		300
	<i>To record depreciation on furniture.</i>		

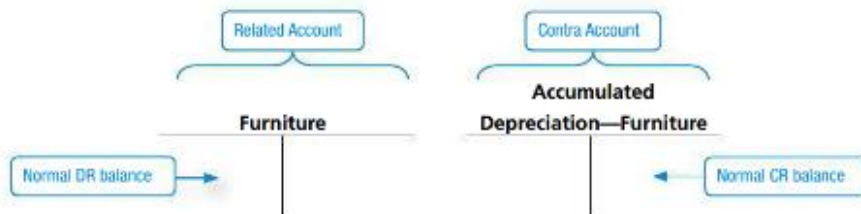
<b>A↓</b>	}	=	}	<b>L +</b>	<b>E↓</b>
Accumulated Depreciation— Furniture↑				Depreciation Expense— Furniture↑	

**The Accumulated Depreciation Account** Notice that in the above adjusting entry for depreciation, we credited Accumulated Depreciation—Furniture and *not* the asset account Furniture. Why? We need to keep the original cost of the furniture separate from the accumulated depreciation because of the cost principle. Managers can then refer to the Furniture account to see how much the asset originally cost. This information may help decide how much to sell the asset for in the future or how much to pay for new furniture. The **Accumulated Depreciation** account is the sum of all depreciation expense recorded for the depreciable asset to date. Accumulated Depreciation will increase (accumulate) over time.

Accumulated Depreciation is a contra asset, which means that it is an asset account with a normal credit balance. Contra means opposite. A **contra account** has two main characteristics:

- A contra account is paired with and is listed immediately after its related account in the chart of accounts and associated financial statement.
- A contra account's normal balance (debit or credit) is the opposite of the normal balance of the related account.

For example, Accumulated Depreciation—Furniture is the contra account that follows the Furniture account on the balance sheet. The Furniture account has a normal debit balance, so Accumulated Depreciation—Furniture, a contra asset, has a normal credit balance.



A business may have a separate Accumulated Depreciation account for each depreciable asset. Because Smart Touch Learning has both a Building and a Furniture account, it also has these two accounts: Accumulated Depreciation—Building, and Accumulated Depreciation—Furniture. However, small companies often have only one Accumulated Depreciation account for all of their depreciable assets.

When recording depreciation, why don't we record a credit to the Furniture account?



#### Accumulated Depreciation

The sum of all the depreciation expense recorded to date for a depreciable asset.

#### Contra Account

An account that is paired with, and is listed immediately after, its related account in the chart of accounts and associated financial statement and whose normal balance is the opposite of the normal balance of the related account.

After posting the depreciation, the accounts appear as follows:

Furniture		Accumulated Depreciation—Furniture		Depreciation Expense—Furniture	
Dec. 2	18,000		300	Dec. 31	300

The Accumulated Depreciation account accumulates the depreciation expense. This means that next month an additional \$300 will be added to the Accumulated Depreciation—Furniture account creating a balance of \$600, representing two months of depreciation. At the end of three months, the Accumulated Depreciation—Furniture account will have a balance of \$900 (\$300 per month x 3 months).

**Book Value** The balance sheet reports both Furniture and Accumulated Depreciation—Furniture. Because it is a contra account, Accumulated Depreciation—Furniture is subtracted from Furniture. The resulting net amount (cost minus accumulated depreciation) of a plant asset is called its **book value**. The book value represents the cost invested in the asset that the business has not yet expensed. For Smart Touch Learning's furniture, the book value on December 31 is as follows:

**Book Value**  
A depreciable asset's cost minus accumulated depreciation.

**Book value of furniture:**

Furniture	\$ 18,000
Less: Accumulated Depreciation—Furniture	(300)
<b>Book value of furniture</b>	<b>\$ 17,700</b>

Depreciation on the building purchased on December 1 would be recorded in a similar manner. Suppose that the monthly depreciation is \$250. The following adjusting entry would record depreciation for December:

<b>A↓</b>	<b>L +</b>	<b>E↓</b>
Accumulated Depreciation—Building↑		Depreciation Expense—Building↑

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Depreciation Expense—Building	250	
	Accumulated Depreciation—Building		250
	To record depreciation on building.		

Remember, an increase in a contra asset, such as Accumulated Depreciation, decreases total assets. This is because a contra asset has a credit balance and credits decrease assets.



Had Smart Touch Learning not recorded the adjusting entries for depreciation on the furniture and building plant assets would have been overstated and expenses would have been understated. After recording the adjusting entries, plant assets are reported at the correct net amount, as shown on the December 31 partial balance sheet in **Exhibit 3-2**.

**Exhibit 3-2** | Plant Assets on the Balance Sheet of Smart Touch Learning

SMART TOUCH LEARNING Balance Sheet (Partial) December 31, 2016			
<b>Plant Assets:</b>			
Furniture	\$ 18,000		
Less: Accumulated Depreciation—Furniture	(300)	\$ 17,700	
Building	60,000		
Less: Accumulated Depreciation—Building	(250)	59,750	
Land		20,000	
Plant Assets, Net		<b>\$ 97,450</b>	

### Deferred Revenues

Remember, deferred (or unearned) revenues occur when the company receives cash before it does the work or delivers a product to earn that cash. The company owes a product or a service to the customer, or it owes the customer his or her money back. Only after completing the job or delivering the product does the business *earn* the revenue. Because of this delay, unearned revenue is a liability and is also called **deferred revenue**. The revenue associated with the work or product is not recognized when the cash is received but is instead deferred until it is earned.

Suppose, for example, a law firm engages Smart Touch Learning to provide e-learning services for the next 30 days, agreeing to pay \$600 in advance. Smart Touch Learning collected the amount on December 21 and recorded the following entry:

Date	Accounts and Explanation	Debit	Credit
Dec. 21	Cash	600	
	Unearned Revenue		600
	<i>Collected cash for future services.</i>		

#### Deferred Revenue

A liability created when a business collects cash from customers in advance of completing a service or delivering a product.

$$\left. \begin{array}{l} \text{A} \uparrow \\ \text{Cash} \uparrow \end{array} \right\} = \left\{ \begin{array}{l} \text{L} \uparrow \\ \text{Unearned Revenue} \uparrow \end{array} \right. + \text{E}$$

The liability account, Unearned Revenue, now shows that Smart Touch Learning owes \$600 in services.

Unearned Revenue	
600	Dec. 21



During the last 10 days of the month—December 22 through December 31—Smart Touch Learning will *earn* approximately one-third (10 days divided by 30 days) of the \$600, or \$200. Therefore, Smart Touch Learning makes the following adjusting entry to record earning \$200 of revenue:

$$\begin{array}{c} \text{A} \\ \hline \end{array} \left\{ = \begin{array}{c} \text{L} \downarrow \\ \text{Unearned} \\ \text{Revenue} \downarrow \end{array} + \begin{array}{c} \text{E} \uparrow \\ \text{Service} \\ \text{Revenue} \uparrow \end{array} \right.$$

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Unearned Revenue	200	
	Service Revenue		200
	<i>To record service revenue earned that was collected in advance.</i>		

This adjusting entry shifts \$200 from the liability account to the revenue account. Service Revenue increases by \$200, and Unearned Revenue decreases by \$200. Now both accounts are up to date at December 31:

Unearned Revenue				Service Revenue			
Dec. 31	200	600	Dec. 21		5,500	Nov. 8	
		400	Bal.		3,000	Nov. 10	
					8,000	Dec. 28	
					200	Dec. 31	
					16,700	Bal.	

Had the adjusting entry not been made, the liability, Unearned Revenue, would be overstated and Service Revenue would be understated.

## Accrued Expenses

**Accrued Expense**  
An expense that the business has incurred but has not yet paid.

Businesses often incur expenses before paying for them. The term **accrued expense** refers to an expense of this type. An accrued expense hasn't been paid for yet. Consider an employee's salary. Salaries Expense grows as the employee works, so the expense is said to *accrue*. Another accrued expense is interest expense on a note payable. Interest accrues as time passes on the note. An accrued expense always creates an accrued liability.

Companies do not make daily or weekly journal entries to accrue expenses. Instead, they wait until the end of the accounting period. They make an adjusting entry to bring each expense (and the related liability) up to date for the financial statements.

## Accrued Salaries Expense

Smart Touch Learning pays its employee a monthly salary of \$2,400—half on the 15th and half on the first day of the next month. On the next page is a calendar for December and the first week in January with the two pay days circled.

December 2016						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				Dec 1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
				Pay Day		
18	19	20	21	22	23	24
25	26	27	28	29	30	31
Jan 1	2	3	4	5	6	7
Pay Day						

During December, the company paid the first half-month salary on Thursday, December 15, and made this entry:

Date	Accounts and Explanation	Debit	Credit
Dec. 15	Salaries Expense	1,200	
	Cash		1,200
	<i>Paid salaries.</i>		

$$\begin{array}{c} \text{A} \downarrow \\ \text{Cash} \downarrow \end{array} \left\} = \left\{ \begin{array}{c} \text{L} \\ \text{Salaries Expense} \uparrow \end{array} \right. + \left\{ \begin{array}{c} \text{E} \downarrow \\ \text{Salaries Expense} \uparrow \end{array} \right.$$

The December 15 entry records only the first half of December's salaries expense. The second payment of \$1,200 will occur on January 1; however, the expense was incurred in December, so the expense must be recorded in December. On December 31, Smart Touch Learning makes the following adjusting entry:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Salaries Expense	1,200	
	Salaries Payable		1,200
	<i>To accrue salaries expense.</i>		

$$\text{A} \left\} = \left\{ \begin{array}{c} \text{L} \uparrow \\ \text{Salaries Payable} \uparrow \end{array} \right. + \left\{ \begin{array}{c} \text{E} \downarrow \\ \text{Salaries Expense} \uparrow \end{array} \right.$$

After posting, both Salaries Expense and Salaries Payable are up to date:

Salaries Payable		Salaries Expense	
	1,200 Dec. 31	Nov. 15	1,200
	1,200 Bal.	Dec. 1	1,200
		Dec. 15	1,200
		Dec. 31	1,200
		Bal.	4,800

Interest on this note is payable one year later, on December 1, 2017. Although the company won't make the interest payment for a year, the company must record the amount of interest expense that has been incurred by December 31, 2016. The company will make an adjusting entry to record interest expense for one month (December 1–December 31). Assume one month's interest expense on this note is \$100. The December 31 adjusting entry to accrue interest expense is as follows:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Interest Expense	100	
	Interest Payable		100
	<i>To accrue interest expense.</i>		

$$\text{A} = \left\{ \begin{array}{l} \text{L} \uparrow \\ \text{Interest Payable} \uparrow \end{array} + \begin{array}{l} \text{E} \downarrow \\ \text{Interest Expense} \uparrow \end{array} \right.$$

Notice that the adjusting entry records a credit to the liability, Interest Payable. This is because the interest payment will not be made until next year; therefore, Smart Touch Learning owes interest to the bank. Had the adjusting entry not been recorded, liabilities and expenses would have been understated. After posting, Interest Expense and Interest Payable now have the following correct balances:

Interest Payable			Interest Expense	
	100	Dec. 31	Dec. 31	100
	100	Bal.	Bal.	100

## Accrued Revenues

As we have just seen, expenses can occur before a company makes a cash payment for them, which creates an accrued expense. Similarly, businesses can earn revenue before they receive the cash. This creates an **accrued revenue**, which is a revenue that has been earned but for which the cash has not yet been collected.

Assume that Smart Touch Learning is hired on December 15 to perform e-learning services, beginning on December 16. Under this agreement, the business will earn \$1,600

### Accrued Revenue

A revenue that has been earned but for which the cash has not yet been collected.

Interest on this note is payable one year later, on December 1, 2017. Although the company won't make the interest payment for a year, the company must record the amount of interest expense that has been incurred by December 31, 2016. The company will make an adjusting entry to record interest expense for one month (December 1–December 31). Assume one month's interest expense on this note is \$100. The December 31 adjusting entry to accrue interest expense is as follows:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Interest Expense	100	
	Interest Payable		100
	<i>To accrue interest expense.</i>		

$$\text{A} = \left\{ \begin{array}{l} \text{L} \uparrow \\ \text{Interest Payable} \uparrow \end{array} \right\} + \left\{ \begin{array}{l} \text{E} \downarrow \\ \text{Interest Expense} \uparrow \end{array} \right\}$$

Notice that the adjusting entry records a credit to the liability, Interest Payable. This is because the interest payment will not be made until next year; therefore, Smart Touch Learning owes interest to the bank. Had the adjusting entry not been recorded, liabilities and expenses would have been understated. After posting, Interest Expense and Interest Payable now have the following correct balances:

Interest Payable			Interest Expense	
	100	Dec. 31	Dec. 31	100
	100	Bal.	Bal.	100

## Accrued Revenues

As we have just seen, expenses can occur before a company makes a cash payment for them, which creates an accrued expense. Similarly, businesses can earn revenue before they receive the cash. This creates an **accrued revenue**, which is a revenue that has been earned but for which the cash has not yet been collected.

Assume that Smart Touch Learning is hired on December 15 to perform e-learning services, beginning on December 16. Under this agreement, the business will earn \$1,600

### Accrued Revenue

A revenue that has been earned but for which the cash has not yet been collected.



monthly and receive payment on January 15. At the date of hiring, Smart Touch Learning does not record a journal entry because revenue has not yet been earned. During December, it will earn half a month's fee, \$800, for work December 16 through December 31. On December 31, Smart Touch Learning makes the following adjusting entry to record the revenue earned December 16 through December 31:

$$\begin{array}{c} \text{A} \uparrow \\ \text{Accounts} \\ \text{Receivable} \uparrow \end{array} \left\} = \left\{ \begin{array}{c} \text{L} \\ \text{Service} \\ \text{Revenue} \uparrow \end{array} \right. + \begin{array}{c} \text{E} \uparrow \\ \text{Service} \\ \text{Revenue} \uparrow \end{array}$$

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Accounts Receivable	800	
	Service Revenue		800
	<i>To accrue service revenue.</i>		

The adjusting entry records the earned revenue and brings the balance of the Service Revenue account to \$17,500. In addition, the adjusting entry records an additional \$800 account receivable. Smart Touch Learning did not record cash because the business has not yet received payment on the services provided. The cash will not be received until January 15. Smart Touch Learning's account balances after posting the adjusting entry are:

Accounts Receivable				Service Revenue			
Nov. 10	3,000	2,000	Nov. 22	5,500	Nov. 8		
Dec. 31	800			3,000	Nov. 10		
				8,000	Dec. 28		
Bal.	1,800			200	Dec. 31		
				800	Dec. 31		
				17,500	Bal.		

Without the adjustment, Smart Touch Learning's financial statements would understate both an asset, Accounts Receivable, and a revenue, Service Revenue.

**Future Receipt of Accrued Revenues** The adjusting entry on December 31 records revenue earned for half a month and also creates an accounts receivable. When Smart Touch Learning receives the payment on January 15, the business will record the following entry:

$$\begin{array}{c} \text{A} \uparrow \\ \text{Cash} \uparrow \\ \text{Accounts} \\ \text{Receivable} \downarrow \end{array} \left\} = \left\{ \begin{array}{c} \text{L} \\ \text{Service} \\ \text{Revenue} \uparrow \end{array} \right. + \begin{array}{c} \text{E} \uparrow \\ \text{Service} \\ \text{Revenue} \uparrow \end{array}$$

Date	Accounts and Explanation	Debit	Credit
Jan. 15	Cash	1,600	
	Service Revenue		800
	Accounts Receivable		800
	<i>Performed services and received cash.</i>		

Revenue for Jan. 1–Jan. 15

Accounts Receivable created from the adjusting entry.

Notice that on January 15, Smart Touch Learning records revenue only for the remaining half of the month (January 1–January 15). Smart Touch Learning recognizes that \$800 of revenue was already recorded in December. The entry on January 15 removes

the accounts receivable and records the remaining revenue. If the business had incorrectly recorded \$1,600 of Service Revenue on January 15, the revenue would have been overstated in January.

**Exhibit 3-3** summarizes the adjusting entries for deferrals and accruals.

**Exhibit 3-3 Deferral and Accrual Adjustments**

ORIGINAL ENTRY				ADJUSTING ENTRY				
<b>DEFERRALS—Cash receipt or Cash payment occurs first.</b>								
<b>Prepaid Expenses</b>	Prepaid Rent	XXX		Rent Expense	XXX			
	Cash		XXX	Prepaid Rent		XXX		
	<i>Pay for rent in advance and record an asset first.</i>			<i>Adjust for rent used later.</i>				
<b>Depreciation</b>	Furniture	XXX		Depreciation Expense—Furniture	XXX			
	Cash		XXX	Accumulated Depreciation—Furniture		XXX		
	<i>Pay for furniture in advance and record an asset first.</i>			<i>Adjust for depreciation (use) of asset later.</i>				
<b>Unearned Revenues</b>	Cash	XXX		Unearned Revenue	XXX			
	Unearned Revenue		XXX	Service Revenue		XXX		
	<i>Receive cash in advance and record a liability first.</i>			<i>Adjust for revenue earned later.</i>				
<b>ACCRUALS—Cash receipt or Cash payment occurs later.</b>								
<div> <p>Two rules to remember about adjusting entries:</p> <ol style="list-style-type: none"> <li>1. Adjusting entries <u>never</u> involve the Cash account.</li> <li>2. Adjusting entries either               <ol style="list-style-type: none"> <li>a. Increase a revenue account (credit revenue) or</li> <li>b. Increase an expense account (debit expense).</li> </ol> </li> </ol> </div>				<b>Accrued Expenses</b>	Salaries Expense	XXX		
					Salaries Payable		XXX	
					<i>Accrual for expense incurred first.</i>			
				<b>Accrued Revenues</b>	Accounts Receivable	XXX		
					Service Revenue		XXX	
					<i>Accrual for revenue earned first.</i>			

The adjusting entries and account balances after posting for Smart Touch Learning at December 31 are shown in **Exhibit 3-4**.

- Panel A gives the data for each adjustment.
- Panel B shows the adjusting entries.
- Panel C shows the T-accounts and balances after posting.

**Exhibit 3-4 Journalizing and Posting the Adjusting Entries of Smart Touch Learning**

**Panel A: Information for Adjustments**

- |  |                                       |
|--|---------------------------------------|
| a. Prepaid rent expired, \$1,000.  | f. Accrued salaries expense, \$1,200. |
| b. Supplies used, \$400.   | g. Accrued interest on note, \$100.   |
| c. Depreciation on furniture, \$300.   | h. Accrued service revenue, \$800.    |
| d. Depreciation on building, \$250.  |                                       |
| e. Service revenue that was collected in advance and now has been earned, \$200. |                                       |

**Panel B: Adjusting Entries**

Date	Accounts and Explanation	Debit	Credit
(a) Dec. 31	Rent Expense	1,000	
	Prepaid Rent		1,000
	<i>To record rent expense.</i>		
(b) 31	Supplies Expense	400	
	Office Supplies		400
	<i>To record office supplies used.</i>		
(c) 31	Depreciation Expense—Furniture	300	
	Accumulated Depreciation—Furniture		300
	<i>To record depreciation on furniture.</i>		
(d) 31	Depreciation Expense—Building	250	
	Accumulated Depreciation—Building		250
	<i>To record depreciation on building.</i>		
(e) 31	Unearned Revenue	200	
	Service Revenue		200
	<i>To record service revenue earned that was collected in advance.</i>		
(f) 31	Salaries Expense	1,200	
	Salaries Payable		1,200
	<i>To accrue salaries expense.</i>		
(g) 31	Interest Expense	100	
	Interest Payable		100
	<i>To accrue interest expense.</i>		
(h) 31	Accounts Receivable	800	
	Service Revenue		800
	<i>To accrue service revenue.</i>		





## WHAT IS THE PURPOSE OF THE ADJUSTED TRIAL BALANCE, AND HOW DO WE PREPARE IT?

### Learning Objective 4

Explain the purpose of and prepare an adjusted trial balance

### Adjusted Trial Balance

A list of all the accounts with their adjusted balances.

This chapter began with the *unadjusted* trial balance. After the adjustments have been journalized and posted, the account balances are updated and an **adjusted trial balance** can be prepared by listing all the accounts with their adjusted balances. Remember, the purpose of a trial balance is to ensure that total debits equal total credits. Even if the trial balance balances, it does not guarantee that a mistake has not been made. For example, an adjusting entry could have been recorded for the incorrect amount or could have been omitted entirely. The equality of the trial balance ensures only that each posted transaction had an equal debit and credit amount.

The adjusted trial balance for Smart Touch Learning is shown in **Exhibit 3-5**.

**Exhibit 3-5 | Adjusted Trial Balance**

SMART TOUCH LEARNING Adjusted Trial Balance December 31, 2016		
Account Title	Balance	
	Debit	Credit
Cash	\$ 12,200	
Accounts Receivable	1,800	
Office Supplies	100	
Prepaid Rent	2,000	
Furniture	18,000	
Accumulated Depreciation—Furniture		\$ 300
Building	60,000	
Accumulated Depreciation—Building		250
Land	20,000	
Accounts Payable		200
Utilities Payable		100
Salaries Payable		1,200
Interest Payable		100
Unearned Revenue		400
Notes Payable		60,000
Bright, Capital		48,000
Bright, Withdrawals	5,000	
Service Revenue		17,500
Rent Expense	3,000	
Salaries Expense	4,800	
Supplies Expense	400	
Utilities Expense	100	
Depreciation Expense—Furniture	300	
Depreciation Expense—Building	250	
Interest Expense	100	
Total	<u>\$ 128,050</u>	<u>\$ 128,050</u>

## WHAT IS THE IMPACT OF ADJUSTING ENTRIES ON THE FINANCIAL STATEMENTS?

### Learning Objective 5

Identify the impact of adjusting entries on the financial statements

The adjusted trial balance is used to prepare the financial statements. If adjusting entries are not recorded, the ledger accounts will not reflect the correct balances and the adjusted trial balance will be incorrect. Remember, adjusting entries are completed to ensure that all revenues and expenses for the accounting period examined have been recorded. In addition, adjusting entries update the balance sheet accounts so that all accounts are properly valued. Exhibit 3-6 summarizes the impact on the financial statements had the adjusting entries not been recorded.

**Exhibit 3-6** Impact of Adjusting Entries on Financial Statements

Type of Adjusting Entry	Description	Adjusting Entry		Impact on Financial Statement if Adjusting Entries Are Not Made
<b>Deferred Expenses</b>	Advance cash payments of future expenses.	Expense Asset*	DR CR	Income Statement: expenses understated net income overstated Balance Sheet: assets overstated equity overstated
<b>Deferred Revenues</b>	Advance cash receipts of future revenues.	Liability Revenue	DR CR	Income Statement: revenues understated net income understated Balance Sheet: liabilities overstated equity understated
<b>Accrued Expenses</b>	An expense that has been incurred but not paid.	Expense Liability	DR CR	Income Statement: expenses understated net income overstated Balance Sheet: liabilities understated equity overstated
<b>Accrued Revenues</b>	A revenue that has been earned but cash has not yet been collected.	Asset Revenue	DR CR	Income Statement: revenues understated net income understated Balance Sheet: assets understated equity understated

\*If recording depreciation: the contra asset, Accumulated Depreciation, is credited.

## Try It!

9. Identify the impact on the income statement and balance sheet if adjusting entries for the following situations were not recorded.
- Office Supplies used, \$800.
  - Accrued service revenue, \$4,000.
  - Depreciation on building, \$3,500.
  - Prepaid Insurance expired, \$650.
  - Accrued salaries expense, \$2,750.
  - Service revenue that was collected in advance has now been earned, \$130.

Check your answers online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercise S3-14. MyAccountingLab

## HOW COULD A WORKSHEET HELP IN PREPARING ADJUSTING ENTRIES AND THE ADJUSTED TRIAL BALANCE?

A useful step in preparing adjusting entries and the adjusted trial balance is to create a worksheet. A **worksheet** is an internal document that helps summarize data for the preparation of the financial statements. The worksheet is not a journal, a ledger, or a financial statement. It is merely a summary device that helps identify the accounts that need adjustments. Most worksheets are completed using Microsoft Excel.

Exhibit 3-7 (on the next page) shows the partially completed worksheet for Smart Touch Learning.

### Learning Objective 6

Explain the purpose of a worksheet and use it to prepare adjusting entries and the adjusted trial balance

#### Worksheet

An internal document that helps summarize data for the preparation of financial statements.



**Exhibit 3-7 Partially Completed Worksheet**

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	SMART TOUCH LEARNING												
2	Worksheet												
3	December 31, 2016												
4													
5	Account Names	Unadjusted Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Balance Sheet			
6		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit		
7	Cash	\$ 12,200				\$ 12,200							
8	Accounts Receivable	1,000		(h) \$ 800		1,800							
9	Office Supplies	500			\$ 400 (b)	100							
10	Prepaid Rent	3,000			1,000 (a)	2,000							
11	Furniture	18,000				18,000							
12	Accumulated Depreciation—Furniture				300 (c)		\$ 300						
13	Building	60,000				60,000							
14	Accumulated Depreciation—Building				250 (d)		250						
15	Land	20,000				20,000							
16	Accounts Payable		\$ 200				200						
17	Utilities Payable		100				100						
18	Salaries Payable				1,200 (f)		1,200						
19	Interest Payable				100 (g)		100						
20	Unearned Revenue		600 (e)	200			400						
21	Notes Payable		60,000				60,000						
22	Bright, Capital		48,000				48,000						
23	Bright, Withdrawals	5,000				5,000							
24	Service Revenue		16,500		1,000 (e, h)		17,500						
25	Rent Expense	2,000		(a) 1,000		3,000							
26	Salaries Expense	3,600		(f) 1,200		4,800							
27	Supplies Expense			(b) 400		400							
28	Utilities Expense	100				100							
29	Depreciation Expense—Furniture			(c) 300		300							
30	Depreciation Expense—Building			(d) 250		250							
31	Interest Expense			(g) 100		100							
32	<b>Total</b>	<b>\$ 125,400</b>	<b>\$ 125,400</b>	<b>\$ 4,250</b>	<b>\$ 4,250</b>	<b>\$ 128,050</b>	<b>\$ 128,050</b>						
33													

In this chapter, we complete a part of the worksheet. For now, we will concern ourselves with the first four sections.

**Section 1. Account names:** The account names are taken from and listed in the same order as the chart of accounts. (Cash first, Accounts Receivable second, and so on.)

**Section 2. Unadjusted trial balance:** The account balances are copied directly from the ledger before any adjustments. Total debits must equal total credits.

**Section 3. Adjustments:** Enter the adjusting journal entries that were made on December 31.

**Section 4. Adjusted trial balance:** Gives the account balances after adjustments. Each amount in these columns is computed by combining the unadjusted trial balance amounts plus or minus the adjustments. For example, Accounts Receivable starts with a debit balance of \$1,000. Adding the \$800 debit from the adjustment gives Accounts Receivable an adjusted balance of \$1,800. Service Revenue starts with a \$16,500 credit balance. Adding the \$1,000 credit from the adjustment gives Service Revenue an adjusted balance of \$17,500. As with the unadjusted trial balance, total debits must equal total credits.

The income statement and balance sheet sections of the worksheet remain to be completed. These will be covered in the next chapter.

## Try It!

10. The partial worksheet for Sam's Delivery Service follows. Complete the adjusted trial balance columns.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	SAM'S DELIVERY SERVICE												
2	Worksheet												
3	December 31, 2016												
4													
5	Account Names	Unadjusted Trial Balance		Adjustments		Adjusted Trial Balance		Income Statement		Balance Sheet			
6		Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit		
7	Cash	\$ 6,500											
8	Accounts Receivable	800		(g)	\$ 225								
9	Office Supplies	250			\$ 80	(b)							
10	Prepaid Rent	1,000			800	(a)							
11	Delivery Van	23,000											
12	Accumulated Depreciation—Delivery Van				750	(c)							
13	Equipment	15,000			300	(d)							
14	Accumulated Depreciation—Equipment												
15	Accounts Payable		\$ 800										
16	Utilities Payable		230										
17	Salaries Payable				875	(f)							
18	Unearned Revenue		400	(e)	130								
19	Sam, Capital		37,800										
20	Sam, Withdrawals	8,000											
21	Delivery Revenue		23,000		355	(e,g)							
22	Rent Expense	3,000		(a)	800								
23	Salaries Expense	4,500		(f)	875								
24	Supplies Expense			(b)	80								
25	Utilities Expense	180											
26	Depreciation Expense—Delivery Van			(c)	750								
27	Depreciation Expense—Equipment			(d)	300								
28	<b>Total</b>	<b>\$ 62,230</b>	<b>\$ 62,230</b>		<b>\$ 3,160</b>								
29													

Check your answers online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see Short Exercise S3-15. MyAccountingLab

## APPENDIX 3A: Alternative Treatment of Recording Deferred Expenses and Deferred Revenues

Chapters 1–3 illustrate the most popular way to account for deferred expenses and deferred revenues. This appendix illustrates an alternative approach.

### WHAT IS AN ALTERNATIVE TREATMENT OF RECORDING DEFERRED EXPENSES AND DEFERRED REVENUES?

#### Deferred Expenses

Recall that deferred expenses, also called prepaid expenses, are advance payments of future expenses such as insurance, rent, and advertising. Office supplies are also accounted for as deferred expenses.

#### Learning Objective 7

Understand the alternative treatment of recording deferred expenses and deferred revenues

When a business prepays an expense—rent, for example—it can debit an *asset* account (Prepaid Rent) and defer the recognition of the expense. For example, Smart Touch Learning prepaid three months of office rent totaling \$3,000 on December 1, 2016. The journal entry can be recorded as:

$$\begin{array}{c} \text{A} \uparrow \downarrow \\ \text{Prepaid} \\ \text{Rent} \uparrow \\ \text{Cash} \downarrow \end{array} \left\} = \left\{ \begin{array}{c} \text{L} + \text{E} \end{array} \right.$$

Date	Accounts and Explanation	Debit	Credit
Dec. 1	Prepaid Rent	3,000	
	Cash		3,000
	<i>Paid rent in advance.</i>		

### Deferred Expense Recorded Initially as an Expense

Deferring an expense creates an asset. However, the asset may be so short lived that it will expire in the current accounting period—within one year or less. Thus, the accountant may decide to debit the prepayment to an expense account at the time of payment. The entry could, alternatively, be recorded as follows:

$$\begin{array}{c} \text{A} \downarrow \\ \text{Cash} \downarrow \end{array} \left\} = \left\{ \begin{array}{c} \text{L} + \text{E} \downarrow \\ \text{Rent} \\ \text{Expense} \uparrow \end{array} \right.$$

Date	Accounts and Explanation	Debit	Credit
Dec. 1	Rent Expense	3,000	
	Cash		3,000
	<i>Paid rent in advance.</i>		

As of December 31, only one month's prepayment has expired, leaving two months of rent still prepaid. In this case, the accountant must transfer two-thirds of the original prepayment of \$3,000, or \$2,000, to the asset account Prepaid Rent. At December 31, 2016, the business still has the benefit of prepayment for January 1 through February 28, 2017. The adjusting entry at December 31 is as follows:

$$\begin{array}{c} \text{A} \uparrow \\ \text{Prepaid} \\ \text{Rent} \uparrow \end{array} \left\} = \left\{ \begin{array}{c} \text{L} + \text{E} \uparrow \\ \text{Rent} \\ \text{Expense} \downarrow \end{array} \right.$$

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Prepaid Rent	2,000	
	Rent Expense		2,000
	<i>To record prepaid rent.</i>		

After posting, the two accounts appear as follows:

Prepaid Rent		Rent Expense	
Dec. 31	2,000	Dec. 1	3,000
Bal.	2,000	Dec. 31	2,000
		Bal.	1,000

At December 31, the \$3,000 prepayment is correctly divided as \$2,000 of Prepaid Rent and \$1,000 of Rent Expense, regardless of whether the business initially debits the prepayment to an asset or to an expense account.

## Deferred Revenues

Deferred revenues, also called unearned revenues, arise when a business collects cash before earning the revenue. Deferred revenues are liabilities because the business that receives the cash owes the customer goods or services to be delivered later.

When a business receives cash in advance of providing services, a *liability* can be created. As an example, a law firm engages Smart Touch Learning to provide monthly e-learning services, agreeing to pay \$600 in advance. Smart Touch Learning received the \$600 on December 21. Smart Touch Learning records the following entry, recognizing the liability and deferring the recognition of the revenue.

Date	Accounts and Explanation	Debit	Credit
Dec. 21	Cash	600	
	Unearned Revenue		600
	Collected cash for future services.		

$$\begin{array}{c} \text{A} \uparrow \\ \text{Cash} \uparrow \end{array} = \left\{ \begin{array}{c} \text{L} \uparrow \\ \text{Unearned} \\ \text{Revenue} \uparrow \end{array} + \begin{array}{c} \text{E} \end{array} \right.$$

## Deferred Revenues Recorded Initially as a Revenue

Another way to account for the receipt of cash is to credit a *revenue* account when the business receives cash.

Date	Accounts and Explanation	Debit	Credit
Dec. 21	Cash	600	
	Service Revenue		600
	Collected cash for future services.		

$$\begin{array}{c} \text{A} \uparrow \\ \text{Cash} \uparrow \end{array} = \left\{ \begin{array}{c} \text{L} \\ \text{Service} \\ \text{Revenue} \uparrow \end{array} + \begin{array}{c} \text{E} \uparrow \end{array} \right.$$

If the business then earns all the revenue within the same accounting period, no adjusting entry is needed at the end. However, if the business earns only part of the revenue in that period, it must make an adjusting entry. In our example, Smart Touch Learning has earned only one-third of the \$600, or \$200, by December 31, 2016. Accordingly, Smart Touch Learning must make an adjusting entry to transfer the unearned portion (2/3 of \$600, or \$400) from the revenue account to a liability, as follows:

Date	Accounts and Explanation	Debit	Credit
Dec. 31	Service Revenue	400	
	Unearned Revenue		400
	To record unearned revenue.		

$$\begin{array}{c} \text{A} \\ \text{Service} \\ \text{Revenue} \downarrow \end{array} = \left\{ \begin{array}{c} \text{L} \uparrow \\ \text{Unearned} \\ \text{Revenue} \uparrow \end{array} + \begin{array}{c} \text{E} \downarrow \\ \text{Service} \\ \text{Revenue} \downarrow \end{array} \right.$$

The adjusting entry transfers the unearned portion of service revenue to the liability account because Smart Touch Learning still owes e-learning services next year. After posting, the total amount, \$600, is properly divided between the liability account—\$400, and the revenue account—\$200, as follows:

Unearned Revenue			Service Revenue		
	400	Dec. 31	←	Dec. 31	400
	400	Bal.		600	Dec. 21
				200	Bal.



At December 31, the \$600 cash receipt is correctly divided: \$400 of Unearned Revenue and \$200 of Service Revenue, regardless of whether the business initially credits the cash receipt to a liability or to a revenue account.



## Try It!

**11A.** Iron Horse Printing Services purchased \$1,000 of printing supplies for cash, recording the transaction using the alternative treatment for deferred expenses. At the end of the year, Iron Horse had \$300 of printing supplies remaining. Record the journal entry for the purchase of printing supplies and the adjusting entry for printing supplies not used.

Check your answer online in MyAccountingLab or at <http://www.pearsonglobaleditions.com/Horngren>.

For more practice, see **Short Exercises S3A-16** and **S3A-17**. **MyAccountingLab**

## REVIEW

### Things You Should Know

#### 1. What is the difference between cash basis accounting and accrual basis accounting?

- Cash basis accounting: Revenue is recorded only when cash is received, and expenses are recorded only when cash is paid.
  - Not GAAP
  - Often used by small businesses
- Accrual basis accounting: Revenue is recorded when earned, and expenses are recorded when incurred.

#### 2. What concepts and principles apply to accrual basis accounting?

- The time period concept assumes that a business's activities can be sliced into small time segments and that financial statements can be prepared for specific periods, such as a month, quarter, or year.
- The revenue recognition principle requires companies to record revenue when it has been earned and determines the amount of revenue to record.
- The matching principle guides accounting for expenses and ensures that all expenses are recorded when they are incurred during the period. It then matches those expenses against the revenues of the period.

#### 3. What are adjusting entries, and how do we record them?

- Adjusting entries are completed at the end of the accounting period and record revenues to the period in which they are earned and expenses to the period in which