

Chapter 12 • Accruals, Deferrals, and the Worksheet

TEACHING OBJECTIVES

- 12-1) Determine the adjustment for merchandise inventory and enter the adjustment on the worksheet.
- 12-2) Compute adjustments for accrued and prepaid expense items, and enter the adjustments on the worksheet.
- 12-3) Compute adjustments for accrued and deferred income items, and enter the adjustments on the worksheet.
- 12-4) Complete a 10-column worksheet.
- 12-5) Define the accounting terms new to the chapter.

SECTIONS

- 1. Calculating and Recording Adjustments
- 2. Completing the Worksheet

CHAPTER OVERVIEW/ LEARNING OBJECTIVES

Learning Link: Chapter 11 discussed employer payroll taxes and insurance premiums for workers' compensation, as well as how and when to file the required tax returns and reports. In Chapter 12, your students will study accrual accounting, including accrued and deferred income and expense, and how these adjustments are recorded on the worksheet.

- 12-1.) This chapter explains the **adjustment needed to remove the old beginning *Merchandise Inventory* balance with the new ending *Merchandise Inventory* balance.** The reason this is needed is that the *Merchandise Inventory* account still reflects the beginning inventory. It explains how the actual quantity of the goods on hand at the end of the period must be counted in order to determine that actual ending period amount. It details the two adjusting journal entries needed to (1) remove old balance and (2) add new balance.
- 12-2.) The chapter explains how **expense accounts are adjusted** at the end of the period so that they correctly reflect the current period. Examples of adjustments include provision for uncollectible accounts and depreciation. Other typical adjustments of expense accounts involve accrued expenses and prepaid expenses.
- 12-3.) The chapter describes how to **compute adjustments for accrued and deferred income items**, and enter the adjustments on the work sheet. It explains that revenue accounts are adjusted at the end of the period so that they correctly reflect the current period.

12-4.) The chapter reviews **how to complete a 10-column worksheet**. When all adjustments have been entered on the worksheet, the worksheet is completed so that the financial statements can be prepared easily.

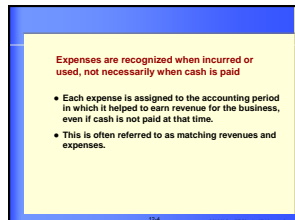
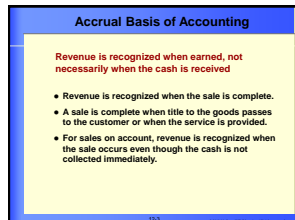
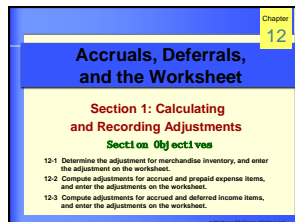
At the beginning of the chapter, there is a short paragraph about *Urban Outfitters, Inc.* Let's read this together. . .



Ask. . . "What types of adjustments do you think the accountants at *Urban Outfitters* recorded as a result of the sales decline the company faced in the recent economic downturn?"

Answer-- Students may assess that an unexpected decline in sales would mean surplus inventory that would have to be reduced—most likely by selling the too sophisticated merchandise at lower prices. Expenses for market research to determine a better merchandise strategy would also need to be recorded.

- **FAST FACTS:** Urban Outfitters, Inc is an innovative specialty retail company that targets highly defined customer niches.
- Their brands include Urban Outfitters, Anthropology, Free People., Leifsdottir, and Terrain.
- The stores offer a very eclectic mix of merchandise.
- Part of the reason for Urban Outfitters' success has been due to disciplined inventory and expense management during tough economic times.
- First quarter sales for 2014 climbed to 648 Million, 14% higher than the same quarter last year.



Section 1. CALCULATING AND RECORDING ADJUSTMENTS

A. The Accrual Basis of Accounting

- Point out that financial statements are prepared using the accrual basis of accounting.
- Explain that the accrual basis of accounting is different than the cash basis of accounting. In accrual basis accounting:
Revenues are recognized when earned, not when they are received.
Expenses are recorded when they are incurred, not when they are paid.
- Remind students that we are studying the accrual basis of accounting.



Ask, "Can anyone tell me what the word 'accrue' means?" (to accumulate or increase something periodically.)

- Mention that accrued expenses are unpaid, unrecorded expenses.
- Explain how certain events in daily life represent accrued expenses. (Wages owed but not yet paid.)

B. Using the Worksheet to Record Adjustments



Ask, "Can anyone remember what some of the columns were on the *worksheet* which was covered in chapter 5?" The worksheet included columns for the **trial balance**, the **adjustments**, the **adjusted trial balance**, the **income statement accounts**, and the **balance sheet accounts**.

- Explain that we will be using the worksheet again in this chapter.
- Figure 12.1 - Point out that it is the same worksheet that was discussed in chapter 5 except there are several new accounts that a merchandising company would use. (Sales, Sales Returns and Allowances, Purchases, Merchandise Inventory, etc.)



Ask, "Can anyone explain where to find the account names and their balances to put together a trial balance on the worksheet?"

General ledger accounts

Objective 1

Objective 12-1 Determine the adjustment for Merchandise Inventory.

- An asset account for merchandise inventory is maintained in the general ledger.
Inventory
- All purchases of merchandise are debited to the Purchases account.
Purchases
- All sales of merchandise are credited to the revenue account Sales.
Sales

◆ Adjustment for Merchandise Inventory

Teaching Tip:



Ask, "Does anyone work in a merchandising organization?" Ask them to explain how their companies keep track of their inventory. Pose the following questions: "How often is a physical inventory taken? Does the company do this internally or hire an inventory service to take the physical count?"

Notice that no entries are made directly to the Merchandise Inventory account during the accounting period.

Consequently, when the trial balance is prepared at the end of the period, the Merchandise Inventory account still shows the beginning inventory for the period.

Merchandise Inventory	Purchases	Sales
□□	□□□	□□□

Based on a physical count taken on December 31, merchandise inventory for Whiteside Antiques totaled \$47,000.

Whiteside Antiques needs to adjust the Merchandise Inventory account to reflect the balance at the end of the year.

The adjustment is made in two steps.

Each step needs two general ledger accounts:

- Merchandise Inventory
- Income Summary

The first step is to remove beginning inventory from the books. Whiteside Antiques began the year with \$52,000 in inventory.

QUESTION: What is the amount of the first inventory adjustment?

ANSWER: \$52,000

Beginning Inventory

Adjustment for Beginning Inventory

Income Summary	Merchandise Inventory
52,000	Bal. 52,000
	52,000

The next step is to place ending inventory on the books. Whiteside Antiques ended the year with \$47,000 in inventory.

QUESTION: What is the amount of the next inventory adjustment?

ANSWER: \$47,000

Ending Inventory

Adjustment for Ending Inventory

Merchandise Inventory	Income Summary
47,000	47,000

- Remind students that the *Merchandise Inventory* account is an asset that appears on the *Balance Sheet*.

- Point out that the existing amount in the account is the beginning balance of the inventory at the start of the period.



Ask, "What would be the journal entry to record the purchase of inventory for cash (assuming a periodic inventory system)?" Dr. *Purchases* and Cr. *Cash*

- Point out that the *Merchandise Inventory* account is not directly affected by these journal entries; the *Merchandise Inventory* must be adjusted at the end of the period to reflect the value of ending inventory.

- Tell students to look at Figure 12-1 and explain:

- The merchandise adjustment is made in two steps:

1. The beginning inventory is taken off the books by transferring the account balance to the *Income Summary* account. This entry is labeled (a) on the worksheet in Figure 12-1.

2. The ending inventory is placed on the books by debiting *Merchandise Inventory* and crediting *Income Summary*. This entry is labeled (b) on the worksheet in Figure 12-1.

Objective 12-2

Compute adjustments for accrued and prepaid expense items and enter the adjustments on the worksheet.

Losses from Uncollectible Accounts

- Under accrual accounting, the expense for uncollectible accounts is recorded in the same period as the related sale.
- The expense is *estimated* because the actual amount of uncollectible accounts is not known until later periods.
- The estimated expense is debited to an account named *Uncollectible Accounts Expense*.

Several methods exist for estimating the expense for uncollectible accounts.

Whiteside Antiques uses the **percentage of net credit sales** method.

The rate used is based on the company's past experience with uncollectible accounts and management's assessment of current business conditions.

Whiteside Antiques estimates that 0.80 percent of net credit sales will be uncollectible.

Net credit sales for the year were \$100,000.

The estimated expense for uncollectible accounts is \$800 ($\$100,000 \times 0.0080$).

Adjustment for Uncollectible Accounts

Uncollectible Accounts Expense	Allowance for Doubtful Accounts
800	250 Beg Bal
	800

The entry to record the expense for uncollectible accounts includes a credit to a contra asset account, *Allowance for Doubtful Accounts*. This account appears on the balance sheet as follows.

Accounts Receivable	\$32,000
Allowance for Doubtful Accounts	(1,050)
Net Accounts Receivable	<u>\$30,950</u>

Objective 2

◆ Adjustment for Loss from Uncollectible Accounts



Ask, "What would be some reasons for a customer to not pay a bill?" (Never received an invoice, lost the invoice, forgot, did not have the money, went bankrupt, etc.)

- Emphasize that, for valid or invalid reasons, some customers do not pay their bills; businesses must adjust their accounting records to reflect these losses.
- Point out that the business wants to match the expense for uncollectible accounts with the sales revenue for the same period.
- Discuss the need for estimating the amount of uncollectible accounts. (For example, the *Company uses percentage of net credit sales*)
- Explain that there are several ways to estimate the amount of the uncollectible accounts.
- Point out that when the adjustment is made, ***Uncollectible Accounts Expense*** is debited and a contra-asset account, ***Allowance for Doubtful Accounts***, is credited.
- Refer to Figure 12-1 and point out adjustment (c).



Ask, "Can anyone tell me on which financial statement the contra-asset account ***Allowance for Doubtful Accounts*** would appear?" (Balance Sheet)

- Explain the write-off procedure for specific accounts

◆ **Adjustments for Depreciation**

- Review with students the definition of "depreciation." (Depreciation is the allocation of the cost of a long-term asset to operations, during its expected useful life.)



Ask, "Why do we have to make an adjustment for depreciation?" (**Depreciation is applied to long-term assets; an adjustment is necessary to allocate a portion of the cost of the asset to a specific short-term period, such as one month, one quarter, or one year.**)

- Point out that, land, is the only long-term asset not depreciated.



Ask, "Can anyone guess why?" (**Unlimited useful life**)

- Remind students about the two accounts used in the depreciation adjustment—**Depreciation Expense, Accumulated Depreciation**

Adjustment for Depreciation	
QUESTION:	What is property, plant, and equipment?
ANSWER:	Property, plant, and equipment are long-term assets that are used in the operation of a business and that are subject to depreciation.

- Depreciation of Store Equipment

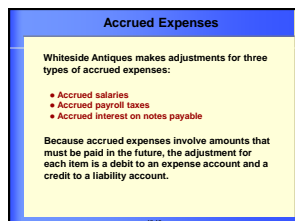
Remind students how to calculate the amount of depreciation using the *straight-line method*.

Remind students that book value is found by subtracting the amount of accumulated depreciation from the asset account.

Refer to Figure 12-1 and point out **adjustment (d)** on the worksheet.

- Depreciation of Office Equipment

Refer to Figure 12-1 and point out **adjustment (e)** on the worksheet.



◆ Adjustments for Accrued Expenses

Teaching Tip: Draw a calendar for the month of December. Tell students to assume that they are employees of a company that are paid each Friday and that December 13th and December 27th were paydays.



Ask, "How should your employer treat your two days of work (Monday, 30th and Tuesday 31st) since you were not due to be paid until the next payday in January?"

- Guide students to understand that the *wages expense* for those two days could be treated as an accrued expense. An adjustment must be made so that the period accurately reflects the company's expenses.

Adjustment for Accrued Salaries	
Salaries Expense - Sales	Salaries Payable
1,200	1,200

Accrued Payroll Taxes	
The accrued employer's payroll taxes are:	
Social security tax	$\$1,200 \times 0.0620 = \74.40
Medicare tax	$1,200 \times 0.0145 = 17.40$
Total accrued payroll taxes	<u>\$91.80</u>

Adjustment for Accrued Payroll Taxes		
Payroll Taxes Expense	Social Security Tax Payable	Medicare Tax Payable
91.80	74.40	17.40

Accrued Unemployment Taxes	
The entire \$1,200 is also subject to unemployment taxes.	
The accrued unemployment taxes are:	
Federal unemployment tax	$\$1,200 \times 0.006 = \7.20
State unemployment tax	$\$1,200 \times 0.054 = 64.80$
Total accrued taxes	<u>\$72.00</u>

Adjustment for Accrued Payroll Taxes		
Payroll Taxes Expense	Social Security Tax Payable	Medicare Tax Payable
91.80	74.40	17.40

Accrued Interest on Notes Payable	
On December 1, 2016, Whiteside Antiques issued a two-month note for \$2,000, with annual interest of 12 percent.	
Whiteside Antiques will pay the interest when the note matures on February 1, 2017.	
However, the interest expense is incurred day by day and should be allocated to each fiscal period involved in order to obtain a complete and accurate picture of expenses.	

The accrued interest expense amount is determined by using the interest formula:	
Principal x Rate x Time	
$\$2,000 \times 0.12 \times 1/12 = \20	
The fraction 1/12 represents one month, which is 1/12 of a year.	
Date of note: December 1, 2016	
Expense for 2016 = 1 month (Dec. 1 - 31)	

■ Accrued Salaries

Refer to Figure 12-1 and point out **adjustment (f)** on the worksheet.

■ Accrued Payroll Taxes

Refer to Figure 12-1 and point out **adjustments (g) and (h)** on the worksheet.

✓ Emphasize that these adjustments are "compound" entries.

✓ Further point out that these two separate adjustments could have been combined into ONE adjustment.

■ Accrued Interest on Notes Payable

Remind students how to calculate interest using the formula:

$$\text{Principal} \times \text{Rate} \times \text{Time}$$

Refer to Figure 12-1 and point out **adjustment (i)** on the worksheet

■ Other Accrued Expenses

Point out that other adjustments may need to be made for property, state, or local taxes payable as well.

◆ Adjustments for Prepaid Expenses

- Tell students that *prepaid expenses* or *deferred expenses* are prepaid assets that are not totally used up.

Adjustment for Accrued Interest on Notes Payable	
Interest Expense	Interest Payable
20	20

Prepaid Expenses
Whiteside Antiques makes adjustments for three types of prepaid expenses:
<ul style="list-style-type: none"> • Prepaid supplies • Prepaid insurance • Prepaid interest on notes payable

- Good examples are prepaid supplies, prepaid insurance & prepaid rent.
- Remind students that some of the prepaid assets may have been used up (expired) by the period end. An adjustment is required to show the amount of asset that has been used (expired).

▪ Supplies Used

Refer to Figure 12-1 and point out **adjustment (j)** on the worksheet

▪ Expired Insurance

Refer to Figure 12-1 and point out **adjustment (k)** on the worksheet

▪ Prepaid Interest on Notes Payable

Point out that occasionally when you borrow money from a bank, the bank will figure the amount of interest and insist that the interest be paid up front when the money is borrowed. When this happens, a ***Prepaid interest* asset** account is set up.

At the end of the accounting period, some of this prepaid interest had expired (been used up) because of time.

Refer to Figure 12-1 and point out **adjustment (l)** on the worksheet

▪ Other Prepaid Expenses

Point out that other common prepaid expenses are prepaid rent, prepaid advertising and prepaid taxes.

Objective 12-3 Compute adjustments for accrued and deferred income items.

QUESTION:

What is accrued income?

ANSWER:

Accrued income is income that has been earned but not yet received and recorded.

Accrued Interest on Notes Receivable

On November 1, 2016, Whiteside Antiques accepted from a customer a four-month, 15 percent note for \$1,200.

The interest income is recorded when it is received, which is normally when the note matures.

However, interest income is earned day by day.

At the end of the period, an adjustment is made to recognize interest income earned but not yet received or recorded.

The amount of earned interest income is determined by using the interest formula:

$$\text{Principal} \times \text{Rate} \times \text{Time}$$

$$\$1,200 \times 0.15 \times 2/12 = \$30$$

The fraction 1/12 represents one month, which is 1/12 of a year. 2/12 is used for two months.

Date of note: November 1, 2016
Income for 2016 = 2 months (Nov.1 – Dec. 31)

Adjustment for Accrued Interest on Notes Receivable

Interest Receivable	Interest Income
30	Bal. 136 30

Adjustment for unearned or deferred income

Unearned or deferred income exists when cash is received before income is earned and would include such items as:

- Subscription income
- Management fees
- Rental income
- Legal fees
- Architectural fees
- Construction fees
- Advertising income

Objective 3

◆ Adjustments for Accrued Income

- Explain that “accrued income” is income that has been earned by not yet received or recorded.
- Point out that the revenue account must be credited to record the increase and an asset account must be debited.

▪ Accrued Interest on Notes Receivable

- ✓ Remind students to use the interest formula.

Refer to Figure 12-1 and point out **adjustment (m)** on the worksheet.

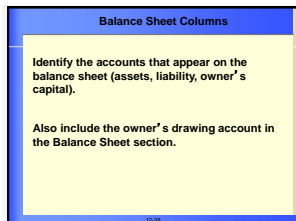
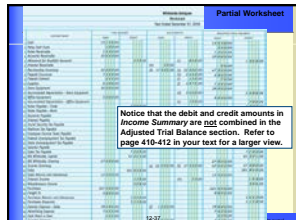
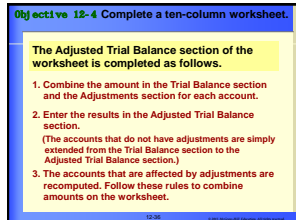
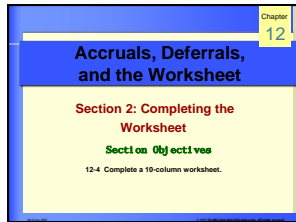
▪ Accrued Commission on Sales Tax

Refer to Figure 12-1 and point out **adjustment (n)** on the worksheet.

◆ Adjustments for Unearned Income

- Explain that “unearned income” is income that has been received or recorded but not yet earned.
- Remind students that under the *accrual basis* of accounting, only income that has been earned appears on the income statement.
- Point out that when *cash is received in advance* of earning the income, then a **liability** account must be created, *unearned subscription revenue* for example.

- Unearned Subscription Income for a Publisher
Illustrate unearned revenue by drawing T-accounts on the board for *Cash* and *Unearned Subscription Revenue* and *Subscription Revenue* and creating an example.
- Other Unearned Income Items
Point out that other types of unearned income include *management fees, rental income, legal fees, etc.*



Objective 4

Section 2. COMPLETING THE WORKSHEET

A. Preparing the Adjusted Trial Balance Section

- Remind students of the procedure for extending the balance to the adjusted trial balance.
- Emphasize that the correct *Merchandise Inventory* ending balance is carried to the ADJUSTED TRIAL BALANCE columns.

B. Preparing the Balance Sheet and Income Statement Sections



Ask, "What accounts appear on the balance sheet?" (Assets, Liabilities and Owner's Capital)

Referring to Figure 12-2, point out that all the accounts that belong on a balance sheet are carried to the BALANCE SHEET columns on the work sheet.

Account	Debit	Credit
Assets		
Liabilities		
Equity		
Income Statement		
Revenues		
Expenses		
Owner's Equity		
Owner's Contributions		
Owner's Withdrawals		
Net Income		

- Remind them that the owner's *drawing* account is also carried to the BALANCE SHEET columns because there no columns for the STATEMENT OF OWNER'S EQUITY accounts that exist on the worksheet.
- Ask, "What accounts appear on the Income Statement?" (Revenues and expenses.)
- Point out that BOTH THE DEBIT AND CREDIT adjustments to the Income Summary account should be carried over to the Income Statement columns. (Both of these will be used later in the Cost of Goods Sold calculation.)
- Referring to Figure 12-2, point out that all the accounts that belong on an income statement are carried to the INCOME STATEMENT columns on the work sheet.

Income Statement Columns

For accounts that appear on the income statement, Sales through Interest Expense, enter the amounts in the appropriate Debit or Credit column of the Income Statement section.

C. Calculating Net Income or Net Loss

- Demonstrate the steps to determine net income or net loss.
 - 1) Total the debits and credits in the Income statement section.
 - 2) Enter the difference on the smaller side.
 - 3) Total the debits and credits in the Balance Sheet section.
 - 4) Enter the difference on the smaller side.
 - 5) Compare the two amounts.

POWER POINT	Section	Topics/ Discussion
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- 6) the amounts balance, rule all money columns to show that the worksheet has been completed.

Point out to students that when they work with worksheets and other reports, journals, or ledgers, it may be helpful for them to use a ruler, bookmark, or some type of straight edge to help avoid skipping lines or columns.

Managerial Implications:



Ask, "What are some possible consequences of not making adjusting entries?"

Answer—Financial results and financial condition will be incorrectly stated.