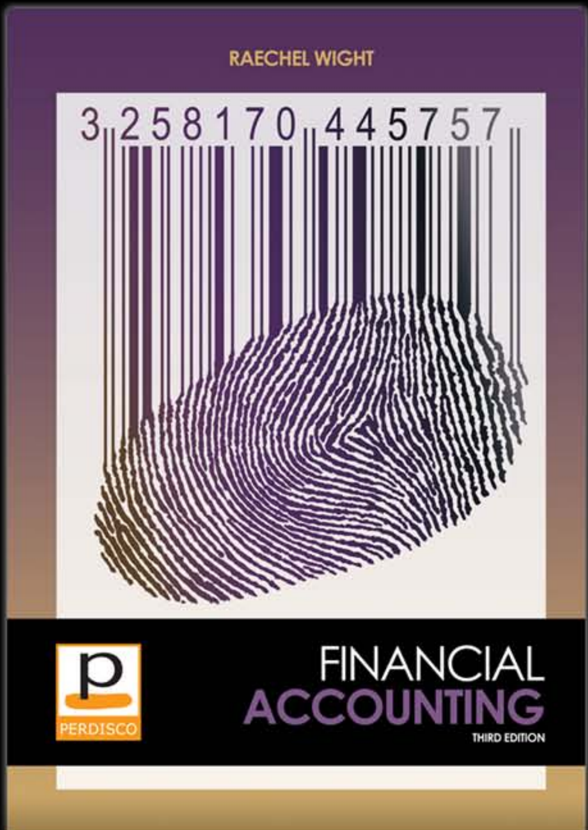

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Chapter 3

Adjusting the accounts

Learning objectives

1. Define the accounting period, the time period principle, the revenue recognition principle and the matching principle
2. Differentiate between the cash basis and accrual basis of accounting
3. Explain what adjusting entries are and why they are needed
4. Explain the four types of adjusting entries and prepare journal entries for each type

Learning objectives

5. Explain the link between adjusting entries and the financial statements
6. Prepare an adjusted trial balance and explain its purpose in the accounting cycle
7. Prepare financial statements from the adjusted trial balance

Learning objective 1

Define the accounting period,
the time period principle,
the revenue recognition principle and
the matching principle

The accounting period

- The **accounting period** is a period of time over which accounting information is collected, summarized and reported to users
- But why divide the life of the business into accounting periods?
- Because it enables the business to report information to users to support decisions regarding the business during the life of the business, rather than waiting until the end of the business

The accounting period

- How long is an accounting period?
- The accounting period is the period of time covered by the reports produced for the users
- Financial reports that cover a one year time period are known as **annual financial statements**
- Financial reports that cover time periods less than one year are known as **interim financial statements** that may be:
  - half-yearly (semiannually)
  - quarterly
  - monthly
  - weekly

The accounting period

- A **fiscal year** is any 12 consecutive months that a business adopts as its annual accounting period
- The fiscal year may not match the calendar year

Time period principle

- The **time period principle** assumes that the economic life of the business can be divided into specific time periods such as a month or a year
- Enables information to be compared from period to period

Revenue recognition principle

- Dividing the economic life of a business into time periods may result in difficulties in deciding which accounting period to recognize revenues
- For example:
  - When cash flows are received in a different period from which the revenues were earned
  - When revenues for the one job are earned over several accounting periods
- The question is, in which accounting period do we recognize the revenues?

Revenue recognition principle

- This difficulty is overcome by the revenue recognition principle
- The **revenue recognition principle** states that revenues are recognized when they are earned
  - When services are provided to customers
  - When goods are delivered to customers

Matching principle

- The **matching principle** states that expenses should be recognized in the same accounting period as the revenues earned from those expenses
- It aims to achieve the proper determination of net income by matching the revenues earned with the expenses incurred to earn that income within the same accounting period

Learning objective 2

Differentiate between
the cash basis and
accrual basis of accounting

Cash versus accrual accounting

- **Cash basis accounting** recognizes revenues when cash is received and recognizes expenses when cash is paid

- **Accrual basis accounting** recognizes revenues when they are earned and expenses as they are incurred, regardless of whether cash has been received or paid

Cash versus accrual accounting

- The distinction is necessary when dividing the economic life of the business into accounting periods
- For example, when cash flows are received in a different period from which the revenues were earned or expenses incurred, cash and accrual accounting will report the revenue earned or the expense incurred in different accounting periods
- GAAP requires the use of **accrual accounting**

Learning objective 3

Explain what adjusting entries are and why they are needed

Adjusting entries

- Adjusting entries are journal entries recorded in the accounts at the end of the accounting period that bring the balance of revenue, expense, asset and liability accounts up to date
- Bring the balance of revenue, expense, asset and liability accounts up to date in preparation for the accounts to be reported in the financial statements

Adjusting entries

- Only required under **accrual accounting**
- Arise because of accrual accounting requires revenues to be recorded in the accounting period in which they are earned and expenses when incurred
- **Not** required under cash accounting

Adjusting entries

- Two main situations that give rise to the need to record adjusting entries:

1. Multi-period items (deferrals)
2. Accrued items

Adjusting entries

1. Multi-period items (deferrals)

- Occur when revenues are earned or expenses incurred over two or more accounting periods
- Cash related to these items is received or paid in an accounting period **before** the revenue has been earned or the expense incurred
- The recognition of the revenue earned or expense incurred is deferred until after the cash is received or paid

Adjusting entries

- Deferrals are recorded in the accounts at the time of the cash receipt or payment but need to be allocated to the revenue or expense account in the accounting periods when they are earned or incurred

Adjusting entries

2. Accrued items

- Occur when revenues are earned or expenses incurred during the accounting period but have not yet been recorded in the accounts at the end of the accounting period
- Cash related to these items is to be received or paid in an accounting period **after** the revenue has been earned or the expense incurred

Adjusting entries

- We can expand the accounting cycle introduced in chapter 2 to include adjusting entries

Step in the accounting cycle	**Documentation**
1. Analyze transactions	Source documents
2. Journalize transactions	General journal
3. Post transactions from the journal to the ledger	General ledger
4. Prepare an unadjusted trial balance	Unadjusted trial balance
5. Journalize adjusting entries	**General journal**
6. Post adjusting entries from the general journal to the ledger	**General ledger**
7. Prepare an adjusted trial balance	**Adjusted trial balance**
8. Prepare the financial statements	Financial statements

Learning objective 4

Explain the four types of adjusting entries and prepare journal entries for each type

Types of adjusting entries

- There are four types of adjusting entries:
  1. Prepaid expenses (including depreciation)
  2. Unearned revenues
  3. Accrued expenses
  4. Accrued revenues
- Remember, adjusting entries are recorded at the **end of the accounting period**
- The following examples assume a one month accounting period

Prepaid expenses

- Items for which payment has been made **before** the benefits are received
- Classified as assets until they are used up

Examples:

- Prepaid insurance
- Supplies
- Prepaid rent
- Prepaid advertising
- Depreciation – special case

Prepaid expenses

- Prepayment is initially recorded in an asset account when the cash is paid

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	1	Prepaid Insurance	142	360	
		Cash	100		360
		(Paid for 36 month insurance policy for the computer.)			

Cash	No. 100
	360

Prepaid Insurance	No. 142
360	

Insurance Expense	No. 542

Prepaid expenses

- Adjusting entry transfers the expense incurred from the asset to the expense account

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	31	Insurance Expense	542	10	
		Prepaid Insurance	142		10
		(Adjusting entry for one month's expired insurance.)			

Cash	No. 100
	360
	360

Prepaid Insurance			No. 142
360	Adj.		10
350			

Insurance Expense		No. 542
Adj.	10	
	10	

Depreciation

- Plant assets are a particular category of prepaid expenses that require adjusting entries to be recorded in the accounts at the end of an accounting period
- **Plant assets** are tangible assets used by the business over more than one accounting period
- **Depreciation** is the process of allocating the cost of a plant asset to an expense account over the useful life of the asset

Depreciation

- We can calculate the depreciation for an asset using the straight line depreciation method
- Requires three pieces of information:

1. Cost

- Expenditure incurred to purchase and bring the asset to its current location and condition ready for use

2. Useful life

- The length of time the asset is expected to be used in the business

Depreciation

3. Residual value

– The amount it is estimated that a plant asset could be sold for at the end of its useful life

Example:

- Cost = $2,400
- Useful life = 24 months
- Residual value = $240

Calculating straight line depreciation

$$\text{Depreciation Expense} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful life}}$$

$$= \frac{\$2{,}400 - \$240}{24 \text{ months}}$$

$$= \frac{\$2{,}160}{24}$$

$$= \$90$$

Depreciation

- Plant asset is initially recorded in an asset account
  - Note: Accounts Payable ledger not shown

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	1	Equipment	160	2,400	
		Accounts Payable	210		2,400
		(Purchased equipment on credit.)			

Equipment	No. 160
2,400	

Accumulated Depreciation – Equipment	No. 161

Depreciation Expense – Equipment	No. 561

Depreciation

- Adjusting entry debits the expense account but does **not** credit the asset account
- Instead, depreciation is credited to an account called **Accumulated Depreciation**
- The accumulated depreciation account keeps track of the amount of depreciation expense that has been charged to the asset to date

Depreciation

- The Accumulated Depreciation account is classified as a contra asset account
- A **contra asset account** is an account linked to a related asset account
- It is reported as a deduction from that related account in the financial statements
- The normal balance of a contra account is the opposite to its related account
- The Accumulated Depreciation account has a normal credit balance

Depreciation

- Adjusting entry for plant assets
  - Note the balance of the asset account does not change

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	31	Depreciation Expense – Equipment	561	90	
		Accumulated Depreciation – Equipment	161		90
		(Purchased equipment on credit.)			

Equipment No. 160	
2,400	

Accumulated Depreciation – Equipment No. 161	
	Adj. 90

Depreciation Expense – Equipment No. 561	
Adj. 90	

Reporting depreciation in the balance sheet

- Depreciation is reported as a separate deduction to the cost of the asset

Partial Balance Sheet December 31, 2011		
Assets	**$**	**$**
Equipment	2,400	
Accumulated Depreciation – Equipment	(90)	2,310
Total Assets		$ XXXX

- The **book value** of the asset is the cost of the asset less its accumulated depreciation
- In this case the book value is $2,310

Unearned revenues

- Occur when cash is received from clients **before** the associated revenues have been earned
- Classified as liabilities until the revenue is earned
- Opposite side of a prepaid expense transaction

Examples:

- Deposits from customers prior to providing the goods or service
- Magazine subscriptions
- Concert tickets

Unearned revenues

- Initially recorded in a liability account when the cash is received

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	1	Cash	100	900	
		Unearned Revenue	230		900
		(Received revenue in advance.)			

Cash	No. 100
900	

Unearned Revenue	No. 230
	900

Revenues	No. 400

Unearned revenues

- Adjusting entry transfers the revenue earned from the liability to the revenue account

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	31	Unearned Revenue	230	600	
		Revenues	400		600
		(Adjusting entry - revenue earned and received in advance.)			

Cash	No. 100
900	
900	

Unearned Revenue	No. 230
Adj. 600	900
	300

Revenues	No. 400
	Adj. 600
	600

Accrued expenses

Accrued expenses are expenses that:

- Have been incurred during the accounting period
- Have **not** been recognized in the accounts
- Are due to be paid in an accounting period **after** the expense has been incurred

Accrued expenses

Examples:

- Salaries and wages
- Utilities expense
- Taxes
- Interest

Accrued expenses

- Adjusting entry records the expense and the associated payable

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	31	Wages Expense	620	330	
		Wages Payable	220		330
		(Adjusting entry for accrued wages expense.)			

Cash	No. 100

Wages Payable	No. 220
	Adj. 330

Wages Expense	No. 620
Adj. 330	

Accrued expenses

- When cash is paid for the expense in a subsequent accounting period, the cash paid may not be equal to the amount accrued
- For example, the cash payment may partly relate to the expense accrued during the prior accounting period, and partly to an expense incurred in the same period as the cash payment
- A compound journal entry is required to allocate the cash payment to the correct accounts

Accrued expenses

Example:

- Cash payment = $1,100
- Accrued wages at the end of December = $330
- Wages expense incurred during January = $770

Accrued expenses

- Subsequent cash payment

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Jan.	9	Wages Payable	220	330	
		Wages Expense	620	770	
		Cash	100		1,100
		(Payment of wages including $330 of accrued wages.)			

Accrued expenses

- Accrued interest expense can be calculated using the **simple interest formula:**

$$\text{Interest} = \text{Loan principal outstanding} \times \text{Annual interest rate \%} \times \text{Fraction of time}$$

Accrued expenses

- Loan principle outstanding = $4,500
- Annual interest rate = 8% = 0.08
- Fraction of time = 1 month (or 1/12 of the year)

Interest	=	Loan principal outstanding	x	Annual interest rate %	x	Fraction of time
	=	$4,500 x 0.08 x 1/12				
	=	$30				

Accrued expenses

- Adjusting entry to record accrued interest expense

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	31	Interest Expense	571	30	
		Interest Payable	225		30
		(Adjusting entry for accrued interest expense.)			

Cash	No. 100

Interest Payable	No. 225
	Adj. 30

Interest Expense	No. 571
Adj. 30	

Accrued revenues

Accrued revenues are revenues that:

- Have been earned on credit during the accounting period
- Have **not** been recognized in the accounts
- The related receipt of cash (or other asset) is due to be received in an accounting period **after** the revenue has been earned
- Opposite side of an accrued expense transaction

Accrued revenues

Example:

- Provision of services over several accounting periods but cash is due to be received at the end of the job

Accrued revenues

- Adjusting entry records the revenue and the associated receivable

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Dec.	31	Accounts Receivable	110	750	
		Revenues	400		750
		(Adjusting entry for accrued revenues.)			

Cash	No. 100

Accounts Receivable	No. 110
Adj. 750	

Revenues	No. 400
	Adj. 750

Accrued revenues

- When cash is received for the service in a subsequent accounting period, the cash received may not be equal to the amount accrued
- For example, the cash receipt may partly relate to the revenue accrued during the prior accounting period, and partly to the revenue earned during the same period as the cash receipt
- A compound journal entry is required to allocate the cash receipt to the correct accounts

Accrued revenues

Example:

- Cash receipt = $3,000
- Accrued revenues at the end of December = $750
- Revenues earned during January = $2,250

Accrued revenues

- Subsequent cash receipt

Date		Account and explanation	Post Ref.	Debit	Credit
2011					
Jan.	27	Cash	100	3,000	
		Accounts Receivable	110		750
		Revenues	400		2,250
		(Received cash for services inc. $750 accrued revenues.)			

Learning objective 5

Explain the link between adjusting entries and the financial statements

Adjusting entries and financial statements

- Adjusting entries bring the balance of revenue, expense, asset and liability accounts up to date
- Each adjusting entry will affect at least one income statement account (a revenue or an expense account) and at least one balance sheet account (an asset or a liability account)
- The Cash account is never used in adjusting entries
- If adjusting entries are not recorded the balances reported in the financial statements may be understated or overstated

Summary of adjusting entries

Type of adjustment	Adjusting entry	Balance sheet BEFORE adjustment	Income statement BEFORE adjustment
Prepaid Expenses (deferrals)	Dr Expense Cr Asset	Asset overstated Equity overstated	Expense understated Net income overstated
Unearned Revenues	Dr Liability Cr Revenues	Liability overstated Equity understated	Revenue understated Net income understated
Accrued Expenses	Dr Expense Cr Payable	Liability understated Equity overstated	Expenses understated Net income overstated
Accrued Revenues	Dr Asset Cr Revenues	Asset understated Equity understated	Revenues understated Net income understated

Learning objective 6

Prepare an adjusted trial balance and explain its purpose in the accounting cycle

Adjusted trial balance

- The **adjusted trial balance** is a trial balance prepared after adjusting entries for the period have been journalized and posted

Step in the accounting cycle	Documentation
1. Analyze transactions	Source documents
2. Journalize transactions	General journal
3. Post transactions from the journal to the ledger	General ledger
4. Prepare an unadjusted trial balance	Unadjusted trial balance
5. Journalize adjusting entries	General journal
6. Post adjusting entries from the general journal to the ledger	General ledger
7. Prepare an adjusted trial balance	**Adjusted trial balance**
8. Prepare the financial statements	Financial statements

Adjusted trial balance

- The adjusted trial balance contains a list of all general ledger accounts and their balances after adjusting entries have been recorded
- The purpose of the adjusted trial balance is to verify that total debits entered into the accounts is equal to total credits after adjusting entries have been recorded and posted to the ledger

Learning objective 7

Prepare financial statements from the adjusted trial balance

Prepare financial statements

- The financial statements prepared from the adjusted trial balance now include the updated account balances from the adjusting entries

Step in the accounting cycle	Documentation
1. Analyze transactions	Source documents
2. Journalize transactions	General journal
3. Post transactions from the journal to the ledger	General ledger
4. Prepare an unadjusted trial balance	Unadjusted trial balance
5. Journalize adjusting entries	General journal
6. Post adjusting entries from the general journal to the ledger	General ledger
7. Prepare an adjusted trial balance	Adjusted trial balance
8. Prepare the financial statements	**Financial statements**