

## Chapter 2

### Accounting for Accruals and Deferrals

#### General Comments for Chapter 2

This chapter introduces accrual accounting. A key concept in this chapter is for the student to understand that revenues earned must be matched with expenses incurred to earn those revenues, regardless of when the cash exchange occurs. You can introduce the subject simply by using a single accounting event in which a business provides services on account. Chapter 1 assumed that all transactions were cash-based, but we all know that reality in the business world includes products and services purchased and sold 'on credit' or 'on account'. Show students the effect of this accrual by having them prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows. Students will often stumble on the concept of Unearned Revenue, thinking that it's actually a revenue account when in fact it's a liability. Explain how customer payments that are received before goods or services are provided must be refunded to the customer if those promised goods or services are never actually delivered. Similarly, show students the effect of interest on the financial statements without mixing interest computations into the example. Students frequently get so lost in the computations they overlook the financial statement impact of interest. Initially provide students with the amount of interest, freeing them to focus on its effects. Once students understand how accrued interest affects the financial statements, then cover the mechanics of interest computations. Encourage students to record transactions using the horizontal financial statements model, even when problems do not require them to do so. Developing the habit of recording transactions using the model will help students see the impact of each transaction on the financial statements as well as help students identify their errors if the accounting equation is not in balance. Specific examples are provided in the detailed lesson plan outline. If you would like to begin the chapter with a problem-based learning exercise, see the notes below.

## **Problem-Based Learning Case: Accrual Accounting**

(We describe problem-based learning in the introduction to this manual.)

Instructions: The case appears on the following page in a format you can copy or display. Distribute copies of the case to the class before explaining accrual accounting. Ask students to individually develop answers. After allowing students time to develop their individual answers, put them into groups to reach consensus on an answer. Also, ask each group to select a spokesperson. Allow groups time to develop answers, and then call on some of the spokespersons to share their solutions. As you respond to the student solutions, explain the basic concepts of accrual accounting with respect to revenues earned and expenses incurred on account.

The final result is:

Net income: revenue of \$145,000 less expenses of \$80,000 = \$65,000.

Total assets: cash, \$45,000 plus accounts receivable, \$25,000 = \$70,000.

Total liabilities: salaries payable: \$5,000.

## Chapter 2 Problem-Based Learning Case: Accrual Accounting



**Professional Headhunters, Inc. (PHI), a job placement company, operates in the north-eastern United States. During 2015 the company earned \$145,000 in revenue by providing services to customers. However, it collected only \$120,000 of the revenue in cash. PHI expected to collect the remaining \$25,000 in 2016. In addition, PHI incurred \$80,000 of expenses. However, by the end of 2015, PHI had paid only \$75,000 of the cash owed for expenses because it had not yet paid \$5,000 to employees who had worked during 2015 but not been paid by the end of the year. PHI expected to pay the \$5,000 in cash to the employees during 2016. Based on this information alone, determine the amount of net income, total assets, and total liabilities PHI should report on its 2015 financial statements.**

## Detailed Outline of a Lesson Plan for Chapter 2

- I. **Distribute copies of Demonstration Problem 2-1**, found near the back of this chapter of the Instructor's Manual.
  - A. Explain the phrase "*on account*." Tell students this means Packard recognizes the revenue when it is earned, which may be before it collects the cash. Packard's customers created charge accounts and purchased goods or services by charging the purchases to their accounts. Revenue is recognized in the accounting period in which the services are provided regardless of when cash changes hands. This discussion should lead to defining the term accrual. In general, transactions in which a revenue or expense is recognized before cash changes hands are called *accruals*. Demonstrate this point by recording the revenue recognition for Packard using the horizontal financial statements model. Next, have your students prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows. To minimize the time required to prepare these financial statements, you may provide students with copies of the workpaper for Demonstration Problem 2-1. The workpaper is near the back of this chapter of the Instructor's Manual.
  - B. Since Packard did not issue any stock, the statement of changes in stockholders' equity becomes a statement of retained earnings. Although the text does not cover a statement of retained earnings, students should be able to infer the format from their experience with the statement of changes in stockholders' equity. Use the exercise to discuss diversity in reporting practice. Although there is general consistency in financial reporting, there is also variety. Students should learn to understand different reporting formats.
  - C. After accounting for the 2015 revenue, assume Packard collects the \$5,000 account receivable in 2016. This is the only 2016 transaction. Have students record the event using the horizontal financial statements model and prepare the four basic financial statements for the 2016 accounting period. Encourage students to analyze the difference between the amount of net income and the amount of cash flow from operating activities. This single transaction clearly illustrates differences between the income statement and the statement of cash flows.

- D. Introduce the term *unearned revenue before starting part B of this problem*. Explain that *unearned revenue is a liability* because it represents an *obligation to provide future services*. Make the point that businesses can be *obligated* to provide services as well as to pay cash. Show your students how to record the liability using the horizontal financial statements model.
- E. Explain the year-end adjustment necessary to recognize three months of earned revenue on December 31. Emphasize the difference between the amount of cash collected and the amount of revenue recognized. Highlight that Jackson earned and recognized the revenue *after* it collected the cash. Draw a general definition of deferrals from this illustration. *Transactions in which a revenue or expense is recognized after cash changes hands are termed deferrals*. Contrast deferrals with accruals which were presented in part A of Demonstration Problem 2-1. For emphasis, reiterate the explanation of an accrual. *Transactions in which a revenue or expense is recognized before cash changes hands are termed accruals*. Although these are not precise definitions, they describe the basic concepts in terms students can understand. Explain that accrual accounting uses both accruals and deferrals.
- F. Also note the connection between reducing the liability account (unearned revenue) and recognizing revenue, reinforcing that *revenue is an increase in assets or a decrease in liabilities from providing services or products to customers*. Similarly, an *expense is a decrease in assets or an increase in liabilities that occurs in efforts to produce revenue*. *Net income is a change in wealth* (increase in net assets). It is not enough to orally define terms. You must repeatedly demonstrate the definitions within the context of problems. Gradually, students will understand fundamental accounting interrelationships.

**II. Use Demonstration Problem 2-2 to introduce accrued interest.** Master copies of the problem, solution, and workpapers are located near the back of this chapter of the Instructor's Manual. The following description of the transactions includes explanatory comments in italics.

- A. Events for 2015 are as follows:
  1. Canton Company borrowed \$10,000 cash from the National Bank on September 1, 2015. The loan was to be repaid in 2016, along with all interest associated with the loan. *The 2015 transactions do not involve common stock, dividends, or other superfluous elements that are not germane to the subject of in-*

*terest. Whenever possible, use an isolated set of transactions that focuses on a specific topic. When multiple topics are introduced simultaneously, students experience information overload, which leads to memorization. This problem focuses on borrowing money, using the borrowed money to invest in revenue-earning assets, and matching the investment revenue with the interest expense.*

2. Canton invested the all of the borrowed money in securities that generated investment revenue.
3. Canton earned investment revenue of \$600 cash.
4. As of December 31, 2015, accrued interest (interest expense) on Canton's bank loan was \$400. *You will want students to understand that the accrued interest is the amount of interest expense from the date of the loan (September 1) through the end of the year. Even though the interest will not be paid until 2016, there is some portion of the total interest amount that is expense in 2015. Explain that Canton had the use of the borrowed money from September through December 2015 and that interest represents the expense that Canton must pay for the use of that money. The amount of interest is provided. This example focuses on how interest expense affects the financial statements. Computing the amount of interest will be addressed in a subsequent problem. Once again, the objective is to avoid introducing too many topics simultaneously. Use this entry to expand the definition of an expense. The increase in the liability account is paired with expense recognition. **Define expenses as decreases in assets or increases in liabilities that occur in the effort to produce revenue.***

Have students record the events using the horizontal financial statements model and prepare financial statements for the accounting period ended December 31, 2015. This might be a good point to ask the students if Canton made a wise business decision to invest the borrowed money since the interest expense of \$400 generated investment revenue of \$600. You can point out that the Statement of Cash Flows shows the financial statement reader that Canton borrowed money to fund the investment and the Income Statement helps the financial statement reader determine whether or not that was a wise decision.

- B. After preparing the 2015 statements, assume these 2016 events:

1. Canton earned investment revenue of \$1,350 cash in 2016.
2. Canton sold its securities for \$10,000 cash.
3. Canton accrued interest of \$800 on the bank loan. *The accrual of interest and the payment of interest are shown as separate transactions. While combining transactions reduces recording time in a manual accounting system, doing so masks the logic behind the steps. Since the objective is to teach students to understand accounting rather than how to save time recording transactions, avoid complex entries.*
4. Canton paid cash for the interest due on the bank loan. *Remind the students that some portion of the interest due was recorded in 2015 and the remainder of the interest due was recorded in 2016.*
5. Canton repaid the \$10,000 bank loan with cash.

**III. Use separate examples to introduce other types of deferrals (prepaid assets, supplies, and long-term depreciable assets).** You can use exercises 2-3 A or B or 2-9 A or B in the textbook as demonstration problems, or create your own. We often make up demonstration problems like these in the classroom. Encourage students to think by asking them to attempt to record the effects of events before you discuss them. For example, instead of defining prepaid assets, simply give the students an event involving a prepaid asset. Say, “On October 1, 2015, ABC Company paid \$1,200 in advance for one year of property insurance protection.” Without having ever discussed prepaid insurance, ask the students to record the event using the horizontal financial statements model. Make them write down an answer. Don’t be concerned with accuracy. Be concerned with involvement. Walk around the room and look at what they are doing. Occasionally collect these exercises from the students as in-class assignments. Give them credit regardless of their answers. The grade is for participation, not accuracy. Your objective is to motivate them to think about the problem before you offer a solution. At this stage, you are not evaluating their performance.

**IV. Time considerations and homework assignments.** Completing Demonstration Problems 2-1 and 2-2 should require approximately one hour of class time. Have the students work along with you as you explain the problems.

Exercises 2-3, 2-9, 2-13, and 2-16 parallel the Demonstration Problems and can be considered for homework assignments.

**V. Use Demonstration Problem 2-3 as a comprehensive summary problem.** This is a two-cycle problem. Explain the first cycle (2015) and then use the second cycle as an in-class assignment. Allot approximately one hour to complete this assignment. Students needing additional time can finish the problem as homework. Problem 2-28A or B mirrors the demonstration problem and can be used as a homework assignment.

**VI. Use the horizontal financial statements model to highlight the differences between accrual and cash basis accounting.** For example, suppose a company provides \$5,000 of services on account and later collects \$3,000 of the account receivable. The effect of these two events on the financial statements is shown below.

Event No.	Balance Sheet				Income Statement			Statement of Cash Flows	
	Cash	+ Acct. Rec.	= Liab.	+ Equity	Rev.	Ä Exp.	= Net Inc.		
1	NA	+ 5,000	= NA	+ 5,000	5,000	Ä n/a	= 5,000		NA
2	3,000	+ (3,000)	= NA	+ NA	NA	Ä n/a	= NA		+3,000 OA

Include other events you deem appropriate. By this point students have a sufficient background to use the horizontal financial statements model. It is critically important to establish a firm foundation in the basics before progressing to more advanced representations. Introduce the model gradually.

**VII. Hand out the official answers to any of the Demonstration Problems that you covered in class.** Doing so allows the students to focus more on understanding the material than on taking notes for later reference. If they know that they will have access to the official answers to the problems worked in class, then they will not be as concerned about recording those answers during the discussion.



## Demonstration Problem 2-1A - Revenue Earned on Account

### Part A

Packard Consultants was started in 2015. During that year the company earned \$5,000 of consulting revenue *on account*. Assume this is the only event experienced by Packard during 2015.

### Required

1. Record the event using the horizontal financial statements model.
2. Prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows for 2015.

### Part B

During 2016, Packard Consultants collected \$5,000 cash from the account receivable it established in Part A.

### Required

1. Record the event under using the horizontal financial statements model.
2. Prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows for 2016.

## Demonstration Problem 2-1B - Unearned Revenue

Jackson Legal Services was started when a client paid the firm a \$12,000 cash retainer on October 1, 2015. Jackson agreed to provide legal advice to the client for a one-year period beginning on the date of the cash receipt. The closing date for the law practice is December 31.

### Required

1. Record the events for 2015 and 2016 using the horizontal financial statements model.
2. Prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows for 2015 and 2016.

## **Demonstration Problem 2-2 - Accrued Interest Payable**

### **Part A**

Canton Company experienced the following accounting events during 2015:

1. Canton Company borrowed \$10,000 cash from the National Bank on September 1, 2015.
2. Canton invested the borrowed money in securities.
3. Canton earned investment revenue of \$600 cash.
4. As of December 31, 2015, accrued interest (interest expense) on Canton's bank loan was \$400. All interest will be paid to National Bank in 2016.

### **Required**

1. Record the events using the horizontal financial statements model.
2. Prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows for 2015.

### **Part B**

Canton Company experienced the following accounting events during 2016:

1. Canton earned investment revenue of \$1,350 cash in 2016.
2. Canton sold its securities for \$10,000 cash.
3. Canton accrued interest of \$800 on the bank loan.
4. Canton paid cash for the interest due on the bank loan.
5. Canton repaid the \$10,000 bank loan with cash.

### **Required**

1. Record the events using the horizontal financial statements model.
2. Prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows for 2016.

## Demonstration Problem 2-3 - Accruals and Deferrals

**Part A** Smith Company experienced the following accounting events during 2015:

1. Smith Company was started when it issued common stock for \$2,000 cash.
2. On September 1, 2015, Smith invested \$1,000 cash in a certificate of deposit at Savings Bank.
3. During the year, the company recognized \$1,500 of consulting revenue on account.
4. The company collected \$1,200 cash from accounts receivable.
5. Smith accrued salary expense during the year of \$900.
6. Paid \$700 of the salaries payable liability.
7. Paid dividends of \$100 to the stockholders.
8. Paid \$360 cash for an insurance policy that covered the company for one year beginning March 1, 2015.
9. On November 1, 2015, Smith collected \$2,880 cash in advance for consulting services to be provided under a one-year contract.
10. Smith adjusted the books to recognize \$20 of accrued interest on the certificate of deposit.
11. Recognized insurance expense for ten months.
12. Recognized income earned under the one-year contract

**Part B** Smith Company experienced the following accounting events during 2016:

1. Smith Company issued additional common stock for \$3,000 cash.
2. During the period Smith recognized \$2,700 of consulting revenue earned on account.
3. Smith collected \$2,800 cash from accounts receivable.
4. Smith accrued salary expense of \$1,500.
5. The company paid \$1,350 of the salaries payable liability.
6. Smith paid dividends of \$300 to the stockholders.
7. Smith borrowed \$2,000 cash from the State Bank.
8. On August 31 Smith accrued the remaining \$40 of interest on the certificate of deposit, collected the cash due from interest receivable, and received the return of principal.
9. Paid \$420 cash to renew the insurance policy for another one-year term.

10. On November 1, Smith purchased land for \$6,000 cash. The land had a market value of \$6,400 as of December 31, 2016.
11. Smith adjusted the books to recognize accrued interest of \$75 on the note payable (see Event No.7) to the State Bank.
12. Smith adjusted the books to reflect the insurance expense that had been incurred
13. Smith adjusted the books to reflect the revenue earned under the one-year consulting contract that began in 2015 (event 9 in 2015).

**Required**

1. Record the events using the horizontal financial statements model.
2. Prepare an income statement, a statement of retained earnings, a balance sheet, and a statement of cash flows for 2015 and 2016.

### Demonstration Problem 2-1A Solution, part 1.

	Assets		=	Liabilities	+	Equity	
Part A, 2015	Cash	Accounts Receivable	=	Liabilities	+	Common Stock	Retained Earnings
Beginning balances	\$ 0	\$ 0	=	\$ 0	+	\$ 0	\$ 0
Effect of recognizing revenue		5,000					5,000
Part B, 2016							
Effect of collecting cash	5,000	(5,000)					
Ending balances	<u>\$5,000</u>	<u>\$ 0</u>	=	<u>\$ 0</u>	+	<u>\$ 0</u>	<u>\$5,000</u>

### Demonstration Problem 2-1A Solution, part 2. Financial Statements

Packard Consultants		
Income Statements		
For the Years Ended December 31,	2015	2016
Consulting revenue	\$5,000	\$ 0
Expenses	0	0
Net income	<u>\$5,000</u>	<u>\$ 0</u>
Statements of Retained Earnings		
Beginning retained earnings	\$ 0	\$5,000
Plus: Net income	5,000	0
Less: Dividends	0	0
Ending retained earnings	<u>\$5,000</u>	<u>\$5,000</u>

<b>Balance Sheets at December 31</b>		
<b>Assets</b>		
Cash	\$ 0	\$5,000
Accounts receivable	5,000	0
<b>Total assets</b>	<u>\$5,000</u>	<u>\$5,000</u>
<b>Equity</b>		
Retained earnings	<u>\$5,000</u>	<u>\$5,000</u>
<b>Statements of Cash Flows</b>		
<b>Cash flows from operating activities</b>	\$ 0	\$5,000
<b>Cash flows from investing activities</b>	0	0
<b>Cash flows from financing activities</b>	0	0
<b>Net change in cash</b>	0	5,000
<b>Beginning cash balance</b>	0	0
<b>Ending cash balance</b>	<u>\$ 0</u>	<u>\$5,000</u>

**Demonstration Problem 2-1B Solution, part 1.**

	<b>Assets</b>	<b>=</b>	<b>Liabilities</b>	<b>+</b>	<b>Equity</b>	
	<b>Cash</b>	<b>=</b>	<b>Unearned Revenue</b>	<b>+</b>	<b>Com. Stock</b>	<b>Ret. Earn.</b>
<b>2015</b>						
<b>Beginning balances</b>	\$ 0	=	\$ 0	+	\$ 0	\$ 0
<b>1. Recognize liability</b>	12,000	=	12,000	+		
<b>2. Adjustment for earned revenue</b>		=	(3,000)	+		3,000
		=		+		
<b>Ending/beginning balances</b>	<b>\$12,000</b>	<b>=</b>	<b>\$ 9,000</b>	<b>+</b>	<b>\$ 0</b>	<b>\$3,000</b>
<b>2016</b>						
<b>1. Adjustment for earned revenue</b>		=	(9,000)	+		9,000
		=		+		
<b>Ending balances</b>	<b>\$12,000</b>	<b>=</b>	<b>\$ 0</b>	<b>+</b>	<b>\$ 0</b>	<b>\$12,000</b>
		=		+		

Demonstration Problem 2-1B Solution, part 2. Financial Statements

<b>Jackson Legal Services Financial Statements</b>		
<b>Income Statements</b>		
For the Years Ended December 31,	2015	2016
Fees revenue	\$ 3,000	\$ 9,000
Expenses	0	0
Net income	<u>\$ 3,000</u>	<u>\$ 9,000</u>
<b>Statements of Retained Earnings</b>		
Beginning retained earnings	\$ 0	\$ 3,000
Plus: Net income	3,000	9,000
Less: Dividends	0	0
Ending retained earnings	<u>\$ 3,000</u>	<u>\$12,000</u>
<b>Balance Sheets as of December 31</b>		
<b>Assets</b>		
Cash	<u>\$12,000</u>	<u>\$12,000</u>
<b>Liabilities</b>		
Unearned revenue	\$ 9,000	\$ 0
<b>Equity</b>		
Retained earnings	3,000	12,000
<b>Total liabilities and equity</b>	<u>\$12,000</u>	<u>\$12,000</u>
<b>Statements of Cash Flows</b>		
Cash flows from operating activities	\$12,000	\$ 0
Cash flows from investing activities	0	0
Cash flows from financing activities	0	0



<b>Net change in cash</b>	<b>12,000</b>	<b>0</b>
<b>Beginning cash balance</b>	<b>0</b>	<b>12,000</b>
<b>Ending cash balance</b>	<b>\$12,000</b>	<b>\$12,000</b>

### Demonstration Problem 2-2 Solution, part 1.

	Assets		=	Liabilities		+	Equity				
2015	Cash	+	Investment Securities	=	Notes Payable	+	Interest Payable	+	Com. Stock	+	Ret. Earn.
<b>Beginning balances</b>	\$ 0		\$ 0	=	\$ 0		\$ 0		\$ 0		\$ 0
<b>1. Effect of borrowing</b>	10,000			=	10,000						
<b>2. Purchased securities</b>	(10,000)		10,000	=							
<b>3. Earned revenue</b>	600			=							600
<b>4. Accrued interest exp.</b>				=			400				(400)
				=							
<b>Ending / beg. balances</b>	\$ 600	+	\$10,000	=	\$10,000	+	\$ 400	+	\$ 0	+	\$ 200
				=							
<b>2016</b>				=							
<b>1. Earned revenue</b>	1,350			=							1,350
<b>2. Sold securities</b>	10,000		(10,000)	=							
<b>3. Accrued interest exp.</b>				=			800				(800)
<b>4. Paid cash for interest</b>	(1,200)			=			(1,200)				
<b>5. Repaid loan</b>	(10,000)			=	(10,000)						
				=							
<b>Ending balances</b>	\$ 750	+	\$ 0	=	\$ 0	+	\$ 0	+	\$ 0	+	\$ 750

## Demonstration Problem 2-2 Solution, Financial Statements

<b>Canton Company</b>		
<b>Income Statements</b>		
For the Years Ended December 31,	2015	2016
Investment revenue	\$600	\$1,350
Interest expense	(400)	(800)
Net income	<u>\$200</u>	<u>\$550</u>
<b>Statements of Retained Earnings</b>		
Beginning retained earnings	\$ 0	\$200
Plus: Net income	200	550
Less: Dividends	0	0
Ending retained earnings	<u>\$200</u>	<u>\$750</u>
<b>Balance Sheets at December 31</b>		
<b>Assets</b>		
Cash	\$ 600	\$750
Investment securities	10,000	0
Total assets	<u>\$10,600</u>	<u>\$750</u>
<b>Liabilities</b>		
Interest payable	\$ 400	\$ 0
Note payable	10,000	0
<b>Equity</b>		
Retained earnings	200	750
Total liabilities and equity	<u>\$10,600</u>	<u>\$750</u>
<b>Statements of Cash Flows</b>		
<b>Cash flows from operating activities</b>		
Inflow from investment income	\$ 600	\$ 1,350
Outflow for interest expense	0	(1,200)

<b>Net inflow from operating activities</b>	<b>600</b>	<b>150</b>
<b>Cash flow from investing activities</b>		
<b>Inflow from sale of securities</b>	<b>0</b>	<b>10,000</b>
<b>Outflow for purchase of securities</b>	<b>(10,000)</b>	<b>0</b>
<b>Net inflow (outflow) from investing activities</b>	<b>(10,000)</b>	<b>10,000</b>
<b>Cash flows from financing activities</b>		
<b>Inflow from issuing note payable</b>	<b>10,000</b>	<b>0</b>
<b>Outflow for repayment of note payable</b>	<b>0</b>	<b>(10,000)</b>
<b>Net inflow (outflow) from financing activities</b>	<b>10,000</b>	<b>(10,000)</b>
<b>Net change in cash</b>	<b>600</b>	<b>150</b>
<b>Beginning cash balance</b>	<b>0</b>	<b>600</b>
<b>Ending cash balance</b>	<b>\$ 600</b>	<b>\$ 750</b>

## **Demonstration Problem 2-3 Solution, part 1. Horizontal Financial Statements Model for 2015**

A spreadsheet is embedded to reflect the solution to this question. This spreadsheet covers both 2015 and 2016. The workpaper for students' use in answering this question would basically be the solution with the amounts deleted for all events except for the 2015 beginning balance.



Worksheet Edmonds  
FFAC8e Ch 2 IM.xls

## **Demonstration Problem 2-3 Solution, part 1. Horizontal Financial Statements Model for 2015**

## Demonstration Problem 2-3 Solution, part 2. Financial Statements

Income Statements for the Years Ended 12/31	2015	2016
Consulting revenue	\$ 1,980	\$ 5,100
Interest revenue	20	40
<b>Total revenue</b>	<b>2,000</b>	<b>5,140</b>
Salary expense	(900)	(1,500)
Insurance Expense	(300)	(410)
Interest expense	0	(75)
<b>Net income</b>	<b>800</b>	<b>\$ 3,155</b>
Statements of Changes in Stockholders' Equity		
Beginning common stock	\$ 0	\$ 2,000
Plus: Common stock issued	2,000	3,000
<b>Ending common stock</b>	<b>2,000</b>	<b>5,000</b>
Beginning retained earnings	0	700
Plus: Net income	800	3,155
Less: Dividends	(100)	(300)
<b>Ending retained earnings</b>	<b>700</b>	<b>3,555</b>
<b>Total stockholders' equity</b>	<b>\$ 2,700</b>	<b>\$ 8,555</b>
Balance Sheets as of December 31		
Cash	\$ 3,920	\$ 4,710
Accounts receivable	300	200
Interest receivable	20	0
Prepaid Insurance	60	70
Certificate of deposit	1,000	0
Land	0	6,000
<b>Total assets</b>	<b>\$ 5,300</b>	<b>\$10,980</b>
Salaries payable	\$ 200	\$ 350
Interest payable	0	75
Unearned Revenue	2,400	0
Note payable	0	2,000
<b>Total liabilities</b>	<b>2,600</b>	<b>2,425</b>
Common stock	2,000	5,000
Retained earnings	700	3,555
<b>Total stockholders' equity</b>	<b>2,700</b>	<b>8,555</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 5,300</b>	<b>\$10,980</b>
Statements of Cash Flows		
<b>Cash flows from operating activities</b>		
Cash receipts from consulting revenue	\$ 4,080	\$ 2,800
Cash receipts from interest revenue	0	60
Cash payments for salaries	(700)	(1,350)
Cash payments for insurance	(360)	(420)
<b>Net cash inflow from operating activities</b>	<b>3,020</b>	<b>1,090</b>
<b>Cash flows from investing activities</b>		
Cash receipt from CD maturity	0	1,000
Cash payment to purchase CD	(1,000)	0
Cash payment to purchase land	0	(6,000)
<b>Net cash outflow for investing activities</b>	<b>(1,000)</b>	<b>(5,000)</b>
<b>Cash flows from financing activities</b>		
Cash receipt from bank loan	0	2,000

<b>Cash receipt from common stock issue</b>	<b>2,000</b>	<b>3,000</b>
<b>Cash payment for dividends</b>	<b>(100)</b>	<b>(300)</b>
<b>Net cash inflow from financing activities</b>	<b>1,900</b>	<b>4,700</b>
<b>Net change in cash</b>	<b>3,920</b>	<b>790</b>
<b>Beginning cash balance</b>	<b>0</b>	<b>3,920</b>
<b>Ending cash balance</b>	<b>\$ 3,920</b>	<b>\$ 4,710</b>



## Demonstration Problem 2-1 Workpaper, part 1.

	Assets		=	Liabilities	+	Equity			
Part A, 2015	Cash	+	Accounts Receivable	=	Liabilities	+	Common Stock	+	Retained Earnings
Beginning balances	\$ 0		\$ 0	=	\$ 0		\$ 0		\$ 0
Effect of recognizing revenue									
Part B, 2016									
Effect of collecting cash									
Ending balances	\$5,000	+	\$ 0	=	\$ 0	+	\$ 0	+	\$5,000

## Demonstration Problem 2-1 Workpaper, part 2. Financial Statements

Packard Consultants		
Income Statements		
For the Years Ended December 31,	2015	2016
Consulting revenue	\$	\$
Expenses		
Net income	\$ 5,000	\$ 0
Statements of Retained Earnings		
Beginning retained earnings	\$ 0	\$
Plus: Net income		
Less: Dividends		
Ending retained earnings	\$5,000	\$5,000
Balance Sheets at December 31		
Assets		
Cash	\$	\$
Accounts receivable		
Total assets	\$	\$
Equity		
Retained earnings	\$5,000	\$5,000
Statements of Cash Flows		
Cash flows from operating activities	\$	\$
Cash flows from investing activities	0	0
Cash flows from financing activities	0	0
Net change in cash		
Beginning cash balance		
Ending cash balance	\$ 0	\$5,000

Demonstration Problem 2-1B Workpaper, part 2

<b>Jackson Legal Services Financial Statements</b>		
<b>Income Statements</b>		
<b>For the Years Ended December 31,</b>	<b>2015</b>	<b>2016</b>
Fees revenue		
Expenses		
Net income	<u>\$ 3,000</u>	<u>\$ 9,000</u>
<b>Statements of Retained Earnings</b>		
Beginning retained earnings	\$ 0	\$ 3,000
Plus: Net income		
Less: Dividends		
Ending retained earnings	<u>\$ 3,000</u>	<u>\$12,000</u>
<b>Balance Sheets as of December 31</b>		
<b>Assets</b>		
Cash		
<b>Liabilities</b>		
Unearned revenue		
<b>Equity</b>		
Retained earnings	3,000	12,000
Total liabilities and equity	<u></u>	<u></u>
<b>Statements of Cash Flows</b>		
Cash flows from operating activities		
Cash flows from investing activities		
Cash flows from financing activities		
Net change in cash		
Beginning cash balance	0	
Ending cash balance	<u>\$12,000</u>	<u>\$12,000</u>

## Demonstration Problem 2-2 Workpaper, part 1.

	Assets		=	Liabilities		+	Equity				
	Cash	+	Investment Securities	=	Notes Payable	+	Interest Payable	+	Com. Stock	+	Ret. Earn.
<b>2015</b>											
<b>Beginning balances</b>	\$ 0		\$ 0	=	\$ 0		\$ 0	+	\$ 0		\$ 0
<b>1. Effect of borrowing</b>											
<b>2. Purchased securities</b>											
<b>3. Earned revenue</b>											
<b>4. Accrued interest exp.</b>											
<b>Ending / beg. balances</b>	\$ 600		\$10,000	=	\$10,000		\$ 400	+	\$ 0		\$ 200
<b>2016</b>											
<b>1. Earned revenue</b>											
<b>2. Sold securities</b>											
<b>3. Accrued interest exp.</b>											
<b>4. Paid cash for interest</b>											
<b>5. Repaid loan</b>											
<b>Ending balances</b>	\$ 750		\$ 0	=	\$ 0		\$ 0	+	\$ 0		\$ 750

## Demonstration Problem 2-2 Workpaper, Financial Statements

<b>Canton Company</b>		
<b>Income Statements</b>		
For the Years Ended December 31,	2015	2016
Investment revenue	\$	\$
Interest expense		
Net income	<u>\$ 200</u>	<u>\$ 550</u>
<b>Statements of Retained Earnings</b>		
Beginning retained earnings	\$	\$
Plus: Net income		
Less: Dividends		
Ending retained earnings	<u>\$ 200</u>	<u>\$ 750</u>
<b>Balance Sheets at December 31</b>		
<b>Assets</b>		
Cash	\$	\$
Investment securities		
Total assets	<u>\$</u>	<u>\$</u>
<b>Liabilities</b>		
Interest payable	\$	\$
Note payable		
<b>Equity</b>		
Retained earnings		
Total liabilities and equity	<u>\$ 10,600</u>	<u>\$ 750</u>
<b>Statements of Cash Flows</b>		
<b>Cash flows from operating activities</b>		
Inflow from investment income	\$	\$
Outflow for interest expense		
Net inflow from operating activities	<u>600</u>	<u>150</u>
<b>Cash flow from investing activities</b>		
Inflow from sale of securities		
Outflow for purchase of securities		
Net inflow (outflow) from investing activities	<u>(10,000)</u>	<u>10,000</u>
<b>Cash flows from financing activities</b>		
Inflow from issuing note payable		
Outflow for repayment of note payable		
Net inflow (outflow) from financing activities	<u>10,000</u>	<u>(10,000)</u>
Net change in cash		
Beginning cash balance		
Ending cash balance	<u>\$ 600</u>	<u>\$ 750</u>

## Demonstration Problem 2-3 Workpaper, part 2. Financial Statements

Income Statements for the Years Ended 12/31	2015	2016
Consulting revenue	\$	\$
Interest revenue		
<b>Total revenue</b>		
Salary expense		
Insurance Expense		
Interest expense		
<b>Net income</b>	<b>800</b>	<b>\$ 3,155</b>
<b>Statements of Changes in Stockholders' Equity</b>		
Beginning common stock	\$	\$
Plus: Common stock issued		
<b>Ending common stock</b>	<b>2,000</b>	<b>5,000</b>
Beginning retained earnings		
Plus: Net income		
Less: Dividends		
<b>Ending retained earnings</b>	<b>700</b>	<b>3,555</b>
<b>Total stockholders' equity</b>	<b>\$</b>	<b>\$</b>
<b>Balance Sheets as of December 31</b>		
Cash	\$	\$
Accounts receivable		
Interest receivable		
Prepaid Insurance		
Certificate of deposit		
Land		
<b>Total assets</b>	<b>\$</b>	<b>\$</b>
Salaries payable	\$	\$
Interest payable		
Unearned Income		
Note payable		
<b>Total liabilities</b>	<b>2,600</b>	<b>2,425</b>
Common stock		
Retained earnings		
<b>Total stockholders' equity</b>		
<b>Total liabilities and stockholders' equity</b>	<b>\$ 5,300</b>	<b>\$10,980</b>
<b>Statements of Cash Flows</b>		
<b>Cash flows from operating activities</b>		
Cash receipts from consulting revenue	\$	\$
Cash receipts from interest revenue		
Cash payments for salaries		
Cash payments for insurance		
<b>Net cash inflow from operating activities</b>	<b>3,020</b>	<b>1,090</b>
<b>Cash flows from investing activities</b>		
Cash receipt from CD maturity		
Cash payment to purchase CD		
Cash payment to purchase land		
<b>Net cash outflow for investing activities</b>	<b>(1,000)</b>	<b>(5,000)</b>
<b>Cash flows from financing activities</b>		
Cash receipt from bank loan		
Cash receipt from common stock issue		
Cash payment for dividends		
<b>Net cash inflow from financing activities</b>	<b>1,900</b>	<b>4,700</b>

<b>Net change in cash</b>		
<b>Beginning cash balance</b>		
<b>Ending cash balance</b>	<b>\$ 3,920</b>	<b>\$ 4,710</b>

## Quiz Questions for Chapter 2

1. J Company recognized \$700 of revenue on account and realized \$600 of cash collections. The company had accrued salary expense of \$300 and invested \$200 in a certificate of deposit. Based on this information alone, the amount of cash flow from operating activities would be
  - a. \$100.
  - b. \$600.
  - c. \$300.
  - d. \$400.
  
2. Y Company issued a \$5,000 face value note to the State Bank on December 1, 2015. The note carried a one-year term and required that \$600 in interest be paid at the end of the term. The adjusting entry to record accrued interest on December 31, 2015 would
  - a. increase liabilities by \$50.
  - b. increase equity by \$50.
  - c. increase net income by \$50.
  - d. none of the above.
  
3. On January 1, 2015, West Company had accounts receivable of \$500. During 2015 West earned \$2,500 of service revenue on account. If the accounts receivable balance as of December 31, 2015, was \$400, what was the amount of cash flow from operating activities?
  - a. \$2,000.
  - b. \$3,000.
  - c. \$2,600.
  - d. \$2,400.
  
4. On June 1, 2015 the MNO Company invested in a \$5,000 one-year certificate of deposit at the bank. The certificate pays \$600 interest annually. On December 31, 2015 the adjusting entry to record interest on MNO's books would
  - a. increase liabilities by \$350.
  - b. increase net income by \$350.
  - c. increase assets by \$600.
  - d. decrease equity by \$300.
  
5. The entry to record revenue on account
  - a. increases liabilities.
  - b. decreases equity.
  - c. decreases assets.
  - d. none of the above.
  
6. On March 1, 2015, A Company invested in a \$5,000 two-year certificate of deposit that paid \$300 annual interest. On December 31, 2015, the adjusting entry to record accrued interest would
  - a. increase assets and equity by \$500.
  - b. increase assets and equity by \$250.
  - c. increase assets and liabilities by \$300.
  - d. increase assets and liabilities by \$250.

7. Q Company collected \$500 cash on an account receivable that was due from R Company. Based on this information, which of the following statements is true?
  - a. Q Company's total assets would increase.
  - b. R Company's total assets would not change.
  - c. Q Company's equity would increase.
  - d. None of the above.
  
8. On June 1, 2015, X Company invested \$10,000 in a certificate of deposit. The CD earned \$1,200 in interest annually and had a one-year term. For 2015, X Company would report income on the income statement and cash flow from operating activities on the statement of cash flows, respectively, of
  - a. \$1,200 / \$1,200
  - b. \$700 / \$700
  - c. \$1,200 / \$ 0
  - d. \$700 / \$0

**Use the following information to answer the next two questions.** On May 1, 2015, Baker Company borrowed \$10,000 from the State Bank with \$900 in interest due annually. The note issued by Baker had a one-year term. Baker reported cash revenue of \$3,400 and \$800 in 2015 and 2016, respectively.

9. Baker's net income for 2015 and 2016 would be
  - a. \$2,500 / \$100
  - b. \$2,800 / \$500
  - c. \$2,400 / \$800
  - d. \$2,500 / \$800
  
10. The cash flow from operating activities Baker would report on the 2015 and 2016 statements of cash flows would be
  - a. \$3,400 / \$(100)
  - b. \$2,500 / \$800
  - c. \$2,800 / \$(100)
  - d. \$2,800 / \$500
  
11. Which of the following illustrates the recognition of revenue earned on account?

	Balance Sheet			Income Statement			Statement of
	Assets	= Liab.	+ Equity	Rev. A	Exp.	= Net Inc.	Cash Flow
a.	+	NA	+	NA	NA	NA	NA
b.	+	NA	+	+	NA	+	NA
c.	A	NA	A	NA	+	A	A OA
d.	+	NA	+	+	NA	+	+ OA

**Use the following information to answer the next two questions.** T Company received \$9,000 cash on February 1, 2015, from U Company as advance payment for services T promised to perform for U over the next three years on a continuous basis.

12. On its 2015 income statement, T would report revenue of
  - a. \$3,300
  - b. \$9,900
  - c. \$3,025
  - d. \$2,750
  
13. On its December 31, 2016 balance sheet T would report liabilities of
  - a. \$6,250
  - b. \$3,250
  - c. \$9,900
  - d. \$5,750



14. Which of the following illustrates purchasing supplies on account?

	Balance Sheet			Income Statement			Statement of
	Assets	= Liab.	+ Equity	Rev. A	Exp.	= Net Inc.	Cash Flow
a.	+	NA	+	NA	NA	NA	NA
b.	+	+	NA	NA	NA	NA	NA
c.	+	+	NA	NA	NA	NA	+ OA
d.	+	NA	+	+	NA	+	+ OA

15. Which of the following illustrates receiving cash as an advance payment for future services?

	Balance Sheet			Income Statement			Statement of
	Assets	= Liab.	+ Equity	Rev. A	Exp.	= Net Inc.	Cash Flow
a.	+	NA	+	NA	NA	NA	NA
b.	+	+	NA	+	NA	+	NA
c.	+	+	NA	NA	NA	NA	+ OA
d.	+	NA	+	+	NA	+	+ OA

**Quiz Answers**

Question	Answer
1	B
2	A
3	C
4	B
5	D
6	B
7	D
8	D
9	B
10	A
11	B
12	D
13	B
14	B
15	C

## Summary Outline of a Lesson Plan for Chapter 2

- I. Use **Demonstration Problem 2-1** to define and illustrate the concept of **accrual accounting**. This problem includes both an accrual (part A) and a deferral (part B) example.
- II. Use **Demonstration Problem 2-2** to introduce *accrued interest*.
- III. Use **Demonstration Problem 2-3** to illustrate interest computations.
- IV. Use separate examples to further illustrate accrual and deferral concepts.
- V. Use **Demonstration Problem 2-4** as a **comprehensive summary problem**. Explain the first cycle to the class and use the second cycle as an in-class assignment. Allot one hour for this assignment. Have slower students finish the problem as homework. Use parallel problem 2-28 in the textbook as a homework assignment.
- VI. **Time considerations and homework assignments.** Demonstration Problems 2-1, 2-2, and 2-3 require approximately one hour of class time. Consider assigning exercises 2-3, 2-9, 2-13, and 2-16 from the textbook as homework.
- VII. Use a **financial statements model** to **highlight the differences between accrual and cash basis accounting**.
- VIII. **Hand out official answers to the Demonstration Problems worked in class.**