# Accounting Principles 

## Lectures 1, 2 \& 3

## Objectives

To develop an understanding of financial statements to serve as a basis for all analysis of business situations.

## Outline

- Financial Information
- Financial Statements
- Accounting Principles
- Ratio Analyses


## Need for

# Financial Information 

- Control
- Coordination
- Planning


## Financial Information

- Financial Perspective
- Customer Perspective
- Internal Business Process Perspective
- Learning and Growth Perspective


## Financial statements



## Accounting

Luca Pacioli, $15^{\text {th }}$ century monk

- Typical Accounting Period: 1 yr
- Double Entry Bookkeeping


## Bookkeeping

- The chart of accounts
- T-account


# The Chart of Accounts 

## (multi-layered)

1000
1100
1110
1111
5000
5100
5110

Current Assets
Cash
Cash, Bank 1
Cash, Bank 1, Account 1
Property
Land
Land, Singapore

## T Account



## Business Account



## Accounting Principles

- Measurement unit: \$
- Double entry
- Cost (not value)
- Conservative
- Going concern
- Period
- Realization
- Matching (Accrual)
- Consistency
- Materiality


# Accounting Record Example 

2.96-Management of Engineering

## Starting Balance

## King's Shoe Store, Inc.

## Starting Balance

1-Jan-00

|  | Accounts with <br> Debit Balances | Accounts with <br> Credit Balances |
| :--- | ---: | ---: |
| Cash (A) | 30,000 |  |
| Account Receivable (A) | 63,000 |  |
| Merchandise Inventory (A) | 175,000 |  |
| Land (A) | 100,000 |  |
| Building and Equipment (A) | 525,000 | 85,000 |
| Accumulated Depreciation (XA) |  | 135,000 |
| Accounts Payable (L) |  | 100,000 |
| Bonds Payable (L) |  | 250,000 |
| Common Stock (SE) |  | 200,000 |
| Additional Paid-in Capital (SE) |  | 123,000 |
| Retained Earnings (SE) |  | 893,000 |
| Total |  |  |
| (A) Asset (XA) Contra Account |  |  |
| (L) Liability |  |  |
| (SE) Shareholders' Equity |  |  |

## Transactions

(1) The firm purchases shoe-making equipment in cash costing $\$ 10,000$
(2) The firm sells merchandise during the year 2000 at a total selling price of $\$ 625,000$. It receives $\$ 225,000$ immediately, with the remainder sold on account
(3) The cost of merchandise sold during the year 2000 is $\$ 90,000$
(4) The firm pays salaries in cash of $\$ 110,000$ for employee services received during the year 2000
(5) The firm collects cash of $\$ 325,000$ from customers who had purchased on account
(6) The firm makes payments of $\$ 70,000$ to merchandise supplies for purchases on account
(7) The firm pays a premium of $\$ 1,500$ on January 1,2000 for a three-year property and liability insurance policy
(8) The firm issues common stock of $\$ 50,000$ for cash on January 28, 2000.
(1) The firm purchases shoe-making equipment in cash costing \$10,000

(2) The firm sells merchandise during the year 2000 at a total selling price of $\$ 625,000$. It receives $\$ 225,000$ immediately, with the remainder sold on account

(3) The cost of merchandise sold during the year 2000 is $\$ 90,000$

(4) The firm pays salaries in cash of $\$ 110,000$ for employee services received during the year 2000

(5) The firm collects cash of $\$ 325,000$ from customers who had purchased on account

| Transaction <br> Number | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |



| Cost of Goods Sold (SE) |  |  |
| :--- | ---: | ---: |
| Bal. 1/1 | - <br>  <br>  <br>  <br> $(3)$ |  |
| Bal. 12/31 | 90,000 |  |


|  | Salary Expense (SE) |  |  |
| :--- | ---: | ---: | ---: |
| Bal. 1/1 | - |  |  |
|  | (4) | 110,000 |  |
| Bal. 12/31 | 110,000 |  |  |

(6) The firm makes payments of $\$ 70,000$ to merchandise supplies for purchases on account

(7) The firm pays a premium of $\$ 1,500$ on January 1,2000 for a three-year property and liability insurance policy

(8) The firm issues common stock of \$50,000 for cash on January 28, 2000.


Summary

$=$

## Liabilities



Shareholders' Equity


## Unadjusted Balance

## King's Shoe Store, Inc.

Unadjusted Balance
31-Dec-00

|  | Accounts with <br> Debit Balances | Accounts with <br> Credit Balances |
| :--- | ---: | ---: |
| Cash (A) | 438,500 |  |
| Account Receivable (A) | 138,000 |  |
| Merchandise Inventory (A) | 85,000 |  |
| Prepaid Insurance (A) | 1,500 |  |
| Land (A) | 100,000 |  |
| Building and Equipment (A) | 535,000 | 85,000 |
| Accumulated Depreciation (XA) |  | 65,000 |
| Accounts Payable (L) |  | 100,000 |
| Bonds Payable (L) |  | 300,000 |
| Common Stock (SE) |  | 200,000 |
| Additional Paid-in Capital (SE) |  | 123,000 |
| Retained Earnings (SE) |  | 625,000 |
| Sales Revenue (SE) |  |  |
| Cost of Goods Sold (SE) | 110,000 |  |
| Salary Expense (SE) | $1,498,000$ | $1,498,000$ |
| Total |  |  |

## Adjusting Entries

- Adjusting the events that continually occur for which no specific transaction signals the requirement for a journal entry but that still affect the net income for the period and the financial position at the end of the period
- Adjusting entries prepared at the end of the accounting period change the balances in the general ledger accounts so that all revenues and expenses are recognized
- For example,
- Recognition of accrued revenues and receivables
- Recognition of accrued expenses and payables
- Allocation of prepaid operating costs, e.g. prepaid insurance cost
- Recognition of Depreciation
- Correction of errors, etc.
(1) Allocation of prepaid insurance cost
- King's Shoe Store paid $\$ 1,500$ on January 1, 2000, for a three-year insurance policy - Transaction \#7
- During the year 2000, one-third of the coverage expired, so $\$ 500$ of the premium should leave the asset account on the balance sheet and become an insurance expense, reducing income and retained earnings.
- In other words, the balance sheet on December 31, 2000, should show only $\$ 1,000$ of prepaid insurance as an asset.

| Transaction <br> Number | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| 9 | Insurance Expense (SE) | 500 |  |
|  | Prepaid Insurance (A) |  |  |
|  |  |  | 500 |



## (2) Recognition of Depreciation

- Although the assets of buildings and equipment provide services for a number of years, their future benefits expire as time passes. Therefore, accounting spreads an asset's cost over the periods of the assets' estimated useful life.
- The term depreciation refers to the charge made to the current operations for the portion of the cost of such assets consumed during the current period. The straight-line method is widely used for depreciation calculations
- King's Shoe Store's internal records show that annual depreciation is $\$ 30,000$ per year.

| Transaction <br> Number | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| 10 | Depreciation Expense (SE) | 30,000 |  |
|  | Accumulated Depreciation (XA) |  | 30,000 |



## (3) Recognition of Income Tax Expense

- Let us assume that King's Shoe Store should pay income tax at $35 \%$ of operating income
- The operating income can be calculated by subtracting total operating expenses from total revenue, i.e.,

$$
\begin{aligned}
& \text { Operating income }= \text { Total revenue }- \text { Total operating expenses } \\
&=\text { Total revenue }-(\text { Cost of Goods Sold }+ \\
& \text { Salary Expense }+ \\
& \text { Insurance Expense }+ \\
&\text { Depreciating Expenses })
\end{aligned}
$$

| Transaction <br> Number | Accounts | Debit | Credit |
| :---: | :---: | :---: | :---: |
| 11 | Income Tax Expense (SE) | 138,075 |  |
|  | Income Tax Payable (L) |  | 138,075 |



## Adjusted Balance

King's Shoe Store, Inc.
Adjusted Balance
31-Dec-00

|  | Unadjusted Balance |  | Adjusting Entries |  |  | Adjusted Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Debit | Credit | Debit | Credit | Transaction Number | Debit | Credit |
| Cash (A) | 438,500 |  |  |  |  | 438,500 |  |
| Account Receivable (A) | 138,000 |  |  |  |  | 138,000 |  |
| Merchandise Inventory (A) | 85,000 |  |  |  |  | 85,000 |  |
| Prepaid Insurance (A) | 1,500 |  |  | 500 | (9) | 1,000 |  |
| Land (A) | 100,000 |  |  |  |  | 100,000 |  |
| Building and Equipment (A) | 535,000 |  |  |  |  | 535,000 |  |
| Accumulated Depreciation (XA) |  | 85,000 |  | 30,000 | (10) |  | 115,000 |
| Accounts Payable (L) |  | 65,000 |  |  |  |  | 65,000 |
| Income Tax Payable (L) |  |  |  | 138,075 | (11) |  | 138,075 |
| Bonds Payable (L) |  | 100,000 |  |  |  |  | 100,000 |
| Common Stock (SE) |  | 300,000 |  |  |  |  | 300,000 |
| Additional Paid-in Capital (SE) |  | 200,000 |  |  |  |  | 200,000 |
| Retained Earnings (SE) |  | 123,000 |  |  |  |  | 123,000 |
| Sales Revenue (SE) |  | 625,000 |  |  |  |  | 625,000 |
| Cost of Goods Sold (SE) | 90,000 |  |  |  |  | 90,000 |  |
| Salary Expense (SE) | 110,000 |  |  |  |  | 110,000 |  |
| Insurance Expense (SE) |  |  | 500 |  | (9) | 500 |  |
| Depreciation Expense (SE) |  |  | 30,000 |  | (10) | 30,000 |  |
| Income Tax Expense (SE) |  |  | 138,075 |  | (11) | 138,075 |  |
| Total | 1,498,000 | 1,498,000 | 168,575 | 168,575 |  | 1,666,075 | 1,666,075 |

## Closing Entries

King's Shoe Store, Inc.
Adjusted Balance
31-Dec-00

|  | Unadjusted Balance |  | Adjusting Entries |  |  | Adjusted Balance |  | Closing Entries (Income Statement) |  | Post-Closing Balance <br> (Balance Sheet) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Debit | Credit | Debit | Credit | Transaction Number | Debit | Credit | Debit | Credit | Debit | Credit |
| Cash (A) | 438,500 |  |  |  |  | 438,500 |  |  |  | 438,500 |  |
| Account Receivable (A) | 138,000 |  |  |  |  | 138,000 |  |  |  | 138,000 |  |
| Merchandise Inventory (A) | 85,000 |  |  |  |  | 85,000 |  |  |  | 85,000 |  |
| Prepaid Insurance (A) | 1,500 |  |  | 500 | (9) | 1,000 |  |  |  | 1,000 |  |
| Land (A) | 100,000 |  |  |  |  | 100,000 |  |  |  | 100,000 |  |
| Building and Equipment (A) | 535,000 |  |  |  |  | 535,000 |  |  |  | 535,000 |  |
| Accumulated Depreciation (XA) |  | 85,000 |  | 30,000 | (10) |  | 115,000 |  |  |  | 115,000 |
| Accounts Payable (L) |  | 65,000 |  |  |  |  | 65,000 |  |  |  | 65,000 |
| Income Tax Payable (L) |  |  |  | 138,075 | (11) |  | 138,075 |  |  |  | 138,075 |
| Bonds Payable (L) |  | 100,000 |  |  |  |  | 100,000 |  |  |  | 100,000 |
| Common Stock (SE) |  | 300,000 |  |  |  |  | 300,000 |  |  |  | 300,000 |
| Additional Paid-in Capital (SE) |  | 200,000 |  |  |  |  | 200,000 |  |  |  | 200,000 |
| Retained Earnings (SE) |  | 123,000 |  |  |  |  | 123,000 |  | 256,425 |  | 379,425 |
| Sales Revenue (SE) |  | 625,000 |  |  |  |  | 625,000 | 625,000 |  | - |  |
| Cost of Goods Sold (SE) | 90,000 |  |  |  |  | 90,000 |  |  | 90,000 |  | - |
| Salary Expense (SE) | 110,000 |  |  |  |  | 110,000 |  |  | 110,000 |  | - |
| Insurance Expense (SE) |  |  | 500 |  | (9) | 500 |  |  | 500 |  | - |
| Depreciation Expense (SE) |  |  | 30,000 |  | (10) | 30,000 |  |  | 30,000 |  | - |
| Income Tax Expense (SE) |  |  | 138,075 |  | (11) | 138,075 |  |  | 138,075 |  | - |
| Total | 1,498,000 | 1,498,000 | 168,575 | 168,575 |  | 1,666,075 | 1,666,075 | 625,000 | 625,000 | 1,297,500 | 1,297,500 |

## Balance Sheet

King's Shoe Store, Inc.
Comparative Balance Sheet
As of December 31, 1999 and 2000

| Assets |  |  | Liabilities and Shareholders' Equity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { December 31, } \\ 2000 \end{gathered}$ | $\begin{gathered} \text { December 31, } \\ 1999 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2000 \end{gathered}$ | $\begin{gathered} \text { December 31, } \\ 1999 \end{gathered}$ |
| Current Assets: |  |  | Current Liabilities |  |  |
| Cash | 438,500 | 30,000 | Account Payable | 65,000 | 135,000 |
| Account Receivable | 138,000 | 63,000 | Income Tax Payable | 138,075 | - |
| Merchandise Inventory | 85,000 | 175,000 | Total Current Liabilities | 203,075 | 135,000 |
| Prepaid Insurance | 1,000 | - | Long-Term Debt |  |  |
| Total Current Assets | 662,500 | 268,000 | Bonds Payable | 100,000 | 100,000 |
| Property, Plant, and Equipment |  |  | Total Liabilities | 303,075 | 235,000 |
| Land | 100,000 | 100,000 | Shareholders' Equity |  |  |
| Building and Equipment (at acquisition cost) | 535,000 | 525,000 | Common Stock (at par value) | 300,000 | 250,000 |
| Less: Accumulated Depreciation | $(115,000)$ | $(85,000)$ | Additional Paid-in Capital | 200,000 | 200,000 |
| Building and Equipment (net) Total Property, Plant, and | 420,000 | 440,000 | Retained Earnings | 379,425 | 123,000 |
| Equipment | 520,000 | 540,000 | Total Shareholders' Equity | 879,425 | 573,000 |
| Total Assets | 1,182,500 | 808,000 | Total Liabilities and | 1,182,500 | 808,000 |

## King's Shoe Store, Inc.

Income Statement for the Year Ending December 31, 2000

| Revenue: |  |  |
| :---: | :---: | :---: |
| Sales Revenue | 625,000 |  |
| Other Revenue | - |  |
| Total Revenue |  | 625,000 |
| Expenses: |  |  |
| Cost of Goods Sold | 90,000 |  |
| Salary Expense | 110,000 |  |
| Insurance Expense | 500 |  |
| Depreciation Expense | 30,000 |  |
| Total Expense |  | 230,500 |
| Operating Income |  | 394,500 |
| Less Income taxes (35\%) |  | $(138,075)$ |
| Net Income |  | 256,425 |

## Statement of Cash Flows

| Cash Flow from Operating Activities: |  |
| :--- | :---: |
| Net Income | 256,425 |
| Noncash Adjustments | 30,000 |
| Depreciation | $(70,000)$ |
| Decrease in accounts payable | 138,075 |
| Increase in tax payable | $(75,000)$ |
| Increase in accounts receivable | 90,000 |
| Decrease in inventory | $(1,000)$ |
| Increase in prepaid expenses | 368,500 |
| Net cash increase from operating activities | $(10,000)$ |
| Cash Flow from Investing Activities: | $(10,000)$ |
| Purchase of Building and Equipment | 50,000 |
| Net cash increase from Investing activities | 50,000 |
| Cash Flow from Financing Activities: | 408,500 |
| Issuance of Common Stocks |  |
| Net cash increase from Financing activities | 30,000 |

## Financial Ratios

Profitability Ratios

Activity Ratios
Asset Turnover
Days of Receivables
Inventory Turnover

Leverage Ratios
Current Ratio
Debt-to-Equity Ratio
Current Ratio
Debt-to-Equity Ratio
Return on Assets (ROA)
Return on Equity (ROE)
Profit Margin


