Module 3 - Inventory Definitions

- Inventory – goods held for resale
- COGS – expenses incurred to purchase or manufacture the merchandise sold for a period
- Raw material
- Work-In-Process
- Finished Goods

Inventory Costs

- Consists of all costs involved in inventory and preparing it for sale
  - Purchase price
  - Freight
  - Receiving costs
  - Storage costs

Ending Inventory and COGS

- Cost of Goods Available for Sale and Cost of Goods Sold

Beginning Inventory

+ Net Purchases or total manufactured goods

= Cost of Goods Available for Sale

- Ending Inventory

= Cost of Goods Sold

Who Owns the Inventory?

- General Rule: Goods should be included in the inventory of the business holding legal title
  - AKA “Legal Title” Rule
- Goods in Transit
  - FOB destination
  - FOB shipping point
- Goods on Consignment – goods owned by consignor (owner of merchandise) is sold by another (consignee), usually on a commission basis

Ending Inventory and COGS

- Cost allocation extremely important
  - More cost remaining in Inventory the less COGS reported on income statement
  - Thus making a mistake with inventory ownership will result in MISSTATING both the income statement and the balance sheet

Inventory Systems - perpetual

- Inventory records are maintained for EACH sales and purchase transaction throughout the accounting period
  - All purchases are added to the inventory account during the accounting period
  - All sales are subtracted from the inventory account during the accounting period
  - In other words…the inventory account is updated EACH time there is a purchase or sale
- An Appliance store would most probably use a Perpetual inventory system

Inventory Systems - periodic

- COGS is determined and inventory is adjusted at THE END of the accounting period
- Used when inventory is composed of a large number of diverse items, each with a relatively low value (i.e. pens, pencils, snacks)
- A Convenience store might use the periodic inventory system

Recording Purchases

a) Purchased on Account: 1,000 shirts at a cost of $10 each for a total of $10,000 on March 1

Perpetual

3/1	Inventory	$10,000	
	Accounts Payable		$10,000

Periodic

3/1	Purchases	$10,000	
	Accounts Payable		$10,000

Recording Purchases

b) Purchased on account: 300 pairs of pants at a cost of $18 each for a total of $5,400 on March 5

Perpetual

3/5 Inventory	$5,400	
Accounts Payable		$5,400

Periodic

3/5 Purchases	$5,400	
Accounts Payable		$5,400

Recording Purchase – purchase returns

c) Returned 30 of the shirts (costing $300) to the supplier because the were stained on March 7th

Perpetual

3/7 Accounts Payable	$300	
Inventory		$300

Periodic

3/7 Accounts Payable	$300	
Purchase Returns		$300

Recording Purchases – freight costs

d) Paid cash for separate shipping costs on the shirts purchased in (a) , $970. The supplier of the pants purchased in (b) included the shipping costs in the $18 purchase price on March 8th

Perpetual

3/8 Inventory	$970	
Cash		$970

Periodic

3/8 Freight In	$970	
Cash		$970

Recording Purchases – purchase discounts

e) Paid for the shirt purchase on March 9th. A 2% discount was given on the $9,700 bill [(1,000 purchased – 30 returned) X $10] because of payment within the ten-day discount period (payment terms were 2/10, n/30).

Perpetual

3/9	Accounts Payable	$9,700	
	Cash		$9,506
	Inventory		$ 194

Periodic

3/9	Accounts Payable	$9,700	
	Cash		$9,506
	Purchase Discount		$ 194

Recording Purchases – purchase discounts

f) Paid $5,400 for the pants purchase on March 17th. No discount was allowed because payment was made after the discount period

Perpetual

3/17	Accounts Payable	$5,400	
	Cash		$5,400

Periodic

3/17	Accounts Payable	$5,400	
	Cash		$5,400

Recording Sales – Credit & Cash

g) Sold on March 18th 600 shirts on account 2/10 net 30 at a price of $25 each for a total of $15,000

Perpetual

3/18	Accounts Receivable	$15,000	
	Cost of goods sold	$ 6,000	
	Revenue		$15,000
	Inventory		$ 6,000

Periodic

3/18	Accounts Receivable	$15,000	
	Revenue		$15,000

Recording Sales – Credit & Cash

h) Sold on March 20th for cash 200 pairs of pants at a price of $40 each for a total of $8,000.

Perpetual

3/20	Cash	$8,000	
	Cost of Goods Sold	$3,600	
	Revenue		$8,000
	Inventory		$3,600

Periodic

3/20	Cash	$8,000	
	Revenue		$8,000

Recording Sales – Sales Returns and Allowances

i) Accepted return of 50 shirts by dissatisfied customers on March 21st

Perpetual

3/21	Sales Returns	$1,250	
	Inventory	$ 500	
	Cost of Goods Sold		$ 500
	Accounts Receivable		$1,250

Periodic

3/21	Sales Returns	$1,250	
	Accounts Receivable		$1,250

Recording Sales – Sales Discounts

j) Received on March 27th payment for shirts purchased on account on March 18th. Customer paid within the discount period.

Perpetual

3/27 Cash		$13,475	
Sales Discounts		$ 275	
	Accounts Receivable		$13,750

Periodic

3/27 Cash		$13,475	
Sales Discounts		$ 275	
	Accounts Receivable		$13,750

Inventory Costing

- Specific Identification
- Cost Flow Assumptions
  - First In First Out - FIFO
  - Last In Last Out – LIFO
  - Average Cost

Inventory Costing problem information

Use the following information to determine inventory cost and cost of goods sold for the following inventory systems and associated cost flow assumptions

Dec 1	Beg Inventory	9 units @ $400 ea
4	purchased	6 units @ $440 ea
11	sold	10 units @ $700 ea
18	purchased	4 units @ $500 ea
23	sold	6 units @ $800 ea
27	purchased	2 units @ $520 ea

Total available units for sale 21

Total number of units sold 16

Total number of units in ending inventory 5

Inventory costing solution

First determine cost of goods available for sale. It will be the same no matter which system or which cost flow assumption is used

9 units @ $400 ea for a total of $3,600

6 units @ $440 ea for a total of $2,640

4 units @ $500 ea for a total of $2,000

2 units @ $520 ea for a total of $1,040

Cost of Goods available for sale $9,280

Inventory Costing – FIFO

- FIFO
  - Periodic Inventory System

Ending inventory

2 @ $520 each for total of $1,040

3 @ $500 each for total of $1,500

Total ending inventory $2,540

Cost of goods available	$9,280
Less ending inventory	($2,540)
Cost of Goods Sold	**$6,740**

Inventory Costing – FIFO

- FIFO
  - Perpetual Inventory System

Ending inventory

2 @ $520 each for total of $1,040

3 @ $500 each for total of $1,500

Total ending inventory $2,540

Cost of goods available	$9,280
Less ending inventory	($2,540)
Cost of Goods Sold	**$6,740**

Inventory Costing - LIFO

- LIFO
  - Periodic Inventory System

Ending inventory

5 @ $400 ea for a total of $2000

Total ending inventory $2000

Cost of goods available	$9,280
Less ending inventory	($2,000)
Cost of goods sold	**$7,280**

Inventory Costing - LIFO

- LIFO
  - Perpetual Inventory System

Ending inventory

3 units @ $400 each for a total of $1,200

2 units @ $520 each for a total of $1,040

Total ending inventory	**$2,240**
Cost of goods available	$9,280
Less ending inventory	($2,240)
Cost of goods sold	**$7,040**

Inventory Costing – cont.

- Average Cost
  - Periodic Inventory System **only**

Cost of goods available $9,280/21 units equals $441.90 each

Ending inventory is 5 units @ $441.90 each for a total of $2,210 (rounded to nearest dollar)

Cost of goods available $9,280

Less ending inventory ($2,210)

Cost of Goods Sold $7,070

Writing Down Inventory

- Recorded amount of inventory should be written down
  - When it is damaged, used, or obsolete
  - When it can be replaced (purchased new) at an amount that is less than the original cost
- Use Lower of Cost or Market Rule

Applying Lower of Cost or Market

- Rules to Apply Lower of Cost or Market
  - Define Market Value as:
    - Replacement cost, if it falls between the ceiling and the floor
    - The floor, if the replacement cost is less than the floor
    - The ceiling, if the replacement cost is higher than the ceiling
    - As a practical matter, when replacement cost, ceiling and floor are compared, market is always the middle value
  - Compare the defined market value with the original cost and choose the lower amount