

Chapter 3 – Job-Order Costing: Cost Flows and External Reporting

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Exercise 3-3

Morse Corporation has provided the following data concerning last month's manufacturing operations.

Purchase of raw materials	\$74,000	
Indirect materials used in production	\$12,000	
Direct labor	\$65,000	
Manufacturing overhead applied to work in process	\$48,000	
Underapplied overhead	\$9,000	
Inventories:	<u>Beginning</u>	<u>Ending</u>
Raw materials	\$18,000	\$10,000
Work in process	\$59,000	\$52,000
Finished goods	\$94,000	\$91,000

Required:

1. Prepare a schedule of cost of goods manufactured for the month.
2. Prepare a schedule of cost of goods sold for the month. Assume the underapplied or overapplied overhead is closed to Cost of Goods Sold.

Requirement 1: Prepare a schedule of cost of goods manufactured for the month.

Schedule of Cost of Goods Manufactured		
Beginning work in process inventory		\$ 59,000
Direct materials:		
Beginning raw materials inventory	\$ 18,000	
Add: Purchases of raw materials	74,000	
Total raw materials available	92,000	
Deduct: Ending raw materials inventory	10,000	
Raw materials used in production	82,000	
Deduct: Indirect materials used in production	12,000	
Direct materials used in production		70,000
Direct labor		65,000
Manufacturing overhead applied to work in process		48,000
Total manufacturing costs added to production		183,000
Total manufacturing costs to account for		242,000
Deduct: Ending work in process inventory		52,000
Cost of goods manufactured		<u>\$190,000</u>

Requirement 2: Prepare a schedule of cost of goods sold for the month.

Schedule of Cost of Goods Sold	
Beginning finished goods inventory	\$ 94,000
Add: Cost of goods manufactured	<u>190,000</u>
Cost of goods available for sale	284,000
Deduct: Ending finished goods inventory	<u>91,000</u>
Unadjusted cost of goods sold	193,000
Add: Underapplied overhead	<u>9,000</u>
Adjusted cost of goods sold	<u><u>\$202,000</u></u>

Exercise 3-4

Franklin Enterprises uses a predetermined overhead rate of \$15.50 per direct labor-hour. This predetermined rate was based on a cost formula that estimates \$421,600 of total manufacturing overhead for an estimated activity level of 27,200 direct labor-hours.

The company incurred actual total manufacturing overhead costs of \$420,000 and 27,000 total direct labor-hours during the period.

Required:

1. Determine the amount of underapplied or overapplied manufacturing overhead for the period.
2. Assume that the company's underapplied or overapplied overhead is closed to Cost of Goods Sold. Would the journal entry to dispose of the underapplied or overapplied overhead increase or decrease the company's gross margin? By how much?

Requirement 1: Determine the amount of underapplied or overapplied manufacturing overhead for the period.

Actual direct labor-hours	27,000
✖ Predetermined overhead rate	<u>\$ 15.50</u>
= Manufacturing overhead applied	418,500
Less: Manufacturing overhead incurred	<u>420,000</u>
Manufacturing overhead underapplied	<u>\$ 1,500</u>

Requirement 2: Assume that the company's underapplied or overapplied overhead is closed to Cost of Goods Sold. Would the journal entry to dispose of the underapplied or overapplied overhead increase or decrease the company's gross margin? By how much?

Because manufacturing overhead is underapplied, the journal entry would increase cost of goods sold by \$1,500 and the gross margin would decrease by \$1,500.

Exercise 3-6

The following data from the just completed year are taken from the accounting records of Kenton Company:

Sales		\$975,000
Direct labor cost		\$165,000
Raw material purchases		\$229,000
Selling expenses		\$48,750
Administrative expenses		\$146,250
Manufacturing overhead applied to work in process		\$180,000
Actual manufacturing overhead costs		\$175,050
Inventories:	<u>Beginning</u>	<u>Ending</u>
Raw materials	\$18,000	\$17,500
Work in process	\$20,000	\$14,750
Finished goods	\$9,000	\$11,000

Required:

1. Prepare a schedule of cost of goods manufactured. Assume all raw materials used in production were direct materials.
2. Prepare a schedule of cost of goods sold. Assume that the company's underapplied or overapplied overhead is closed to Cost of Goods Sold.
3. Prepare an income statement.

[LO3]

Requirement 1: Prepare a schedule of cost of goods manufactured. Assume all raw materials used in production were direct materials.

Beginning work in process inventory	\$ 20,000
Direct materials:	
Beginning raw materials inventory	\$ 18,000
Add: Purchases of raw materials	<u>229,000</u>
Total raw materials available	247,000
Deduct: Ending raw materials inventory	<u>17,500</u>
Direct materials used in production	229,500
Direct labor	165,000
Manufacturing overhead applied to work in process	<u>180,000</u>
Total manufacturing costs added to production	<u>574,500</u>
Total manufacturing costs to account for	594,500
Deduct: Ending work in process inventory	<u>14,750</u>
Cost of goods manufactured	<u>\$579,750</u>

Requirement 2: Prepare a schedule of cost of goods sold. Assume that the company's underapplied or overapplied overhead is closed to Cost of Goods Sold.

Beginning finished goods inventory	\$ 9,000
Add: Cost of goods manufactured	<u>579,750</u>
Cost of goods available for sale	588,750
Deduct: Ending finished goods inventory	<u>11,000</u>
Unadjusted cost of goods sold	577,750
Deduct: Overapplied overhead	<u>4,950</u>
Adjusted cost of goods sold	<u>\$572,800</u>

Requirement 3: Prepare an income statement.

Kenton Company		
Income Statement		
Sales		\$ 975,000
Cost of goods sold		<u>572,800</u>
Gross margin		402,200
Selling and administrative expenses:		
Selling expenses	\$ 48,750	
Administrative expense	<u>146,250</u>	<u>195,000</u>
Net operating income		<u>\$ 207,200</u>

Exercise 3-7

The following cost data relate to the manufacturing activities of Chang Company during the just completed year:

Manufacturing overhead costs incurred:		Other costs incurred:	
Indirect materials	\$ 19,000	Purchases of raw materials (both direct and indirect)	\$ 350,000
Indirect labor	145,000	Direct labor cost	\$ 51,000
Property taxes, factory	7,500	Inventories:	
Utilities, factory	62,000	Raw materials, beginning	\$ 8,000
Depreciation, factory	218,000	Raw materials, ending	\$ 17,000
Insurance, factory	<u>9,500</u>	Work in process, beginning	\$ 22,000
Total actual manufacturing overhead costs incurred	<u>\$ 461,000</u>	Work in process, ending	\$ 37,000

The company uses a predetermined overhead rate of \$48 per machine-hour to apply overhead cost to jobs. A total of 9,700 machine-hours were used during the year.

Required:

1. Compute the amount of underapplied or overapplied overhead cost for the year.
2. Prepare a schedule of cost of goods manufactured for the year.

[LO3], [LO4]

Requirement 1: Compute the amount of underapplied or overapplied overhead cost for the year.

Actual machine-hours	9,700
× Predetermined overhead rate	<u>\$ 48</u>
= Manufacturing overhead applied	465,600
Less: Manufacturing overhead incurred	<u>461,000</u>
Manufacturing overhead overapplied	<u>\$ (4,600)</u>

Requirement 2: Prepare a schedule of cost of goods manufactured for the year.

Beginning work in process inventory		\$ 22,000
Direct materials:		
Beginning raw materials inventory	\$ 8,000	
Add: Purchases of raw materials	<u>350,000</u>	
Total raw materials available	358,000	
Deduct: Ending raw materials inventory	<u>17,000</u>	
Raw materials used in production	341,000	
Deduct: Indirect materials used in production	<u>19,000</u>	
Direct materials used in production		322,000
Direct labor		51,000
Manufacturing overhead applied to work in process		<u>465,600</u>
Total manufacturing costs added to production		<u>838,600</u>
Total manufacturing costs to account for		860,600
Deduct: Ending work in process inventory		<u>37,000</u>
Cost of goods manufactured		<u>\$823,600</u>