Module 5: ACC 3100 Cost Accounting Pack

Introduction

Cost accounting focuses on measuring and analyzing the costs associated with producing goods and services.

Managers use cost accounting information to:

- determine product costs
- evaluate efficiency
- control expenses
- make business decisions

Cost accounting is especially important in manufacturing companies, where materials, labor, and overhead costs must be tracked carefully.

This module introduces the fundamental concepts used in cost accounting.

Manufacturing Costs

Manufacturing companies incur three major categories of production costs.

These costs are referred to as product costs.

The three product cost categories are:

- Direct Materials
- Direct Labor
- Manufacturing Overhead

Direct Materials

Direct materials are raw materials that become part of the finished product.

These materials can be easily traced to specific products.

Examples include:

- wood used to produce furniture
- steel used to manufacture automobiles
- fabric used to make clothing

Journal entry to record materials used in production:

Debit: Work in Process Inventory
Credit: Raw Materials Inventory

Direct Labor

Direct labor refers to wages paid to workers who directly produce goods.

Examples include:

- assembly line workers
- machine operators
- manufacturing technicians

Journal entry:

Debit: Work in Process Inventory
Credit: Wages Payable or Cash

Manufacturing Overhead

Manufacturing overhead includes all production costs that cannot be traced directly to a product.

Examples include:

- factory rent
- factory utilities
- equipment depreciation
- indirect labor
- maintenance costs

Journal entry:

Debit: Manufacturing Overhead
Credit: Various accounts (Cash, Payables, etc.)

Cost Behavior

Cost behavior describes how costs change as production levels change.

There are three main cost behavior patterns.

Fixed Costs

Fixed costs remain constant regardless of production volume within a relevant range.

Examples include:

- factory rent
- salaried supervisors
- equipment depreciation

Even if production increases or decreases, the total fixed cost remains the same.

Variable Costs

Variable costs change in direct proportion to production activity.

Examples include:

- direct materials
- hourly labor
- packaging materials

If production doubles, total variable cost also doubles.

Mixed Costs

Mixed costs contain both fixed and variable components.

Example:

A factory utility bill may include:

- a fixed base charge
- additional charges based on energy usage

Job Order Costing

Job order costing is used when products are manufactured based on specific customer orders.

Each job is tracked separately.

Examples include:

- custom furniture production
- construction projects
- specialized manufacturing

Job Cost Sheet

A job cost sheet records all costs associated with a specific job.

The job cost sheet includes:

- direct materials
- direct labor
- applied overhead

Total job cost:

Direct Materials

- Direct Labor
- Manufacturing Overhead

= Total Job Cost

Example: Job Order Costing

A company receives a custom order.

Costs incurred:

Direct materials: $3,000
Direct labor: $2,000
Manufacturing overhead: $1,500

Total job cost:

3,000 + 2,000 + 1,500 = $6,500

Process Costing

Process costing is used when companies produce large quantities of identical products.

Costs are accumulated by production department rather than individual jobs.

Examples include:

- oil refining
- food processing
- chemical production

Each department records production costs and transfers them to the next department.

Manufacturing Overhead Application

Manufacturing overhead is applied to production using a predetermined overhead rate.

This rate is calculated before production begins.

Formula:

Predetermined Overhead Rate
= Estimated Overhead Costs ÷ Estimated Activity Level

Activity levels may include:

- direct labor hours
- machine hours
- units produced

Example: Overhead Rate

Estimated overhead = $120,000
Estimated machine hours = 30,000 hours

Overhead rate:

120,000 ÷ 30,000 = $4 per machine hour

If a job uses 500 machine hours:

Overhead applied:

500 × 4 = $2,000

Journal entry:

Debit: Work in Process Inventory
Credit: Manufacturing Overhead

Cost of Goods Manufactured

Manufacturing companies prepare a Cost of Goods Manufactured (COGM) statement.

Formula:

Beginning Work in Process

- Total Manufacturing Costs

= Total Cost of Work in Process

- Ending Work in Process

= Cost of Goods Manufactured

This amount is transferred to Finished Goods Inventory.

Cost of Goods Sold

When goods are sold, the cost of the finished product becomes Cost of Goods Sold.

Journal entry:

Debit: Cost of Goods Sold
Credit: Finished Goods Inventory

This expense appears on the income statement.

Common Student Errors

Students frequently struggle with:

• confusing product costs and period costs
• incorrectly applying overhead
• misunderstanding job costing versus process costing
• forgetting to include all production costs in job cost calculations

To avoid errors:

• clearly identify each cost category
• follow the cost flow carefully
• check calculations step by step

Practice Problems

Problem 1

Identify whether the following costs are:

Direct Materials, Direct Labor, or Manufacturing Overhead.

a. Wood used to build a table
b. Factory electricity
c. Wages of assembly workers

Problem 2

Calculate total job cost.

Direct materials: $4,000
Direct labor: $2,500
Manufacturing overhead: $1,200

Problem 3

A company estimates overhead costs of $200,000 and machine hours of 40,000.

Calculate the predetermined overhead rate.

Problem 4

Define fixed cost and give one example.

Practice Problem Answers

Problem 1

a. Direct Materials
b. Manufacturing Overhead
c. Direct Labor

Problem 2

4,000 + 2,500 + 1,200

Total Job Cost = $7,700

Problem 3

200,000 ÷ 40,000

Overhead rate = $5 per machine hour

Problem 4

A fixed cost remains constant regardless of production volume. Example: factory rent.