Chapter 2
Basic Managerial Accounting Concepts

This chapter introduces basic terminology that is used throughout the text. Accounting is sometimes called the language of business and learning accounting terminology is similar to learning a foreign language. Understanding the accounting terminology presented in Chapter 2 is crucial to students understanding topics covered later.

Learning objectives

After studying Chapter 2, students should be able to:

LO1 Explain the meaning of cost and how costs are assigned to products and services.

- Cost is the cash or cash-equivalent value sacrificed for goods and services that are expected to bring a current or future benefit to the organisation.
- Managers use cost information to determine the cost of objects such as products, projects, plants and customers.
- Direct costs are traced to cost objects based on cause-and-effect relationships.
- Indirect (i.e. overhead) costs are allocated to cost objects based on assumed relationships and convenience.

LO2 Define the various costs of manufacturing products and providing services as well as the costs of selling and administration.

- Products are goods that either are purchased or produced by converting raw materials through the use of labour and indirect manufacturing resources, such as plants, land and machinery. Services are tasks performed for a customer or activities performed by a customer using an organisation's products or facilities.
- Product costs are those costs, both direct and indirect, of acquiring a product in a merchandising business and preparing it for sale or of producing a product in a manufacturing business. Product costs are classified as inventory on the balance sheet and then expensed as cost of goods sold on the income statement when the inventory is sold.

- Selling costs are the costs of marketing and distributing goods and services and administrative costs are the costs of organising and running a company.
- Both selling and administrative costs are period costs.

LO3 Prepare income statements for manufacturing and service organisations.

- The cost of goods manufactured (COGM) represents the total product cost of goods completed during the period and transferred to finished goods inventory. The cost of goods sold (COGS) represents the cost of goods that were sold during the period and, therefore, transferred from finished goods inventory to cost of goods sold. For a retailer, there is no COGM, and COGS equals the beginning inventory plus net purchases minus ending inventory.
- For manufacturing and merchandising firms, cost of goods sold is subtracted from sales revenue to arrive at gross margin. In addition, for manufacturing firms, cost of goods manufactured must first be calculated before calculating cost of goods sold.
- Service firms do not calculate gross margin because they do not purchase or produce inventory for sale and, as a result, do not have a cost of goods sold (i.e. inventory expense).
- All firms next subtract selling and administrative expense to arrive at net income.

Staircases

Staircase 2.1	Calculate Product Cost in Total and Per Unit
Staircase 2.2	Calculate Prime Cost and Conversion Cost in Total and Per Unit
Staircase 2.3	Calculate the Cost of Direct Materials Used in Production
Staircase 2.4	Calculate the Cost of Goods Manufactured
Staircase 2.5	Calculate the Cost of Goods Sold
Staircase 2.6	Prepare an Income Statement for a Manufacturing Firm
Staircase 2.7	Calculate the Percentage of Sales Revenue for Each Line on the Income Statement
Staircase 2.8	Prepare an Income Statement for a Service Organisation

Chapter outline

Discussion question: After students read the opening JB Hi-Fi Home Electronics scenario, ask them to select what they considered to be the most important point in the scenario.

1 The meaning and uses of cost

One objective of management accounting is to determine the cost of products, services and customers.

A Cost

Cost is the cash (or cash equivalent) sacrificed for goods or services that are expected to produce current or future benefits.

Expenses are *expired* costs.

Accumulating costs is a way that costs are measured and recorded.

A **cost object** is any item such as products, departments, customers and activities for which costs are measured and assigned.

B Tracing direct costs

Direct costs can be easily and accurately traced to a cost object. The more costs that can be traced to a cost object, the more accurate are the cost assignments.

Indirect costs cannot be easily and accurately traced to a cost object.

C Assigning indirect costs

Allocation is used to assign indirect costs to a cost object, such as a product or department, using a reasonable and convenient method.

Ethics: Tracking costs can also detect unauthorised activity and possible ethical problems.

Methods of cost assignment are summarised below:

	Direct Tracing	Allocation
Description	Identifying and assigning costs to a cost object that are specifically or physically associated with the cost object Relies on physical observation	Assignment of indirect costs to cost objects based on convenience or an assumed linkage
Cost assignment accuracy	More precise	Less accurate

D Other categories of cost

Other categories of costs include:

- **Variable cost:** a cost that increases *in total* as product output increases. For example, the number and cost of bicycle tyres will increase as the number of bicycles produced increases.
- **Fixed cost:** a cost that does not increase as output increases. For example, the cost of insurance for the factory will not increase as the number of bicycles produced increases, but stays the same.

Discussion question: Ask students to consider their mobile phone bill. What portion would be considered a variable cost? What portion would be fixed?

- **Opportunity costs:** the benefit given up or sacrificed when one alternative is chosen over another. Opportunity costs are not usually recorded in the accounting system; however, opportunity costs should be considered when evaluating alternatives for decision making.
- Discussion question: Ask students if they can think of any other examples of variable costs and fixed costs.

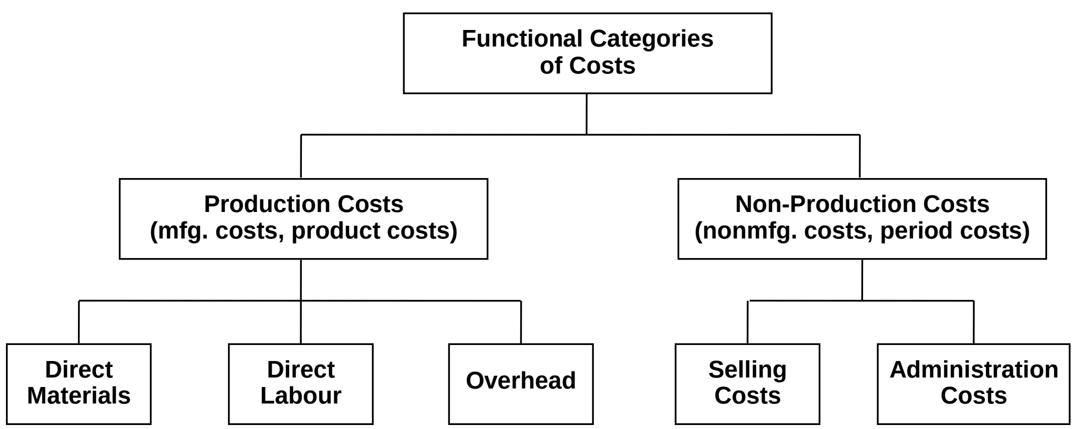
2 Product and service costs

Two types of output of organisations are summarised below:

	Goods (tangible products)	Services
Definition	Goods produced by converting raw materials using labour and capital (plant, land and machinery)	1 Activities performed for a customer or 2 Activity performed by a customer using the organisation's products or facilities
Examples	Laundry detergent Television Bicycles	Accounting services Dry cleaning services Video rental
Organisation	Manufacturing organisations produce tangible products	Service organisations produce intangible products

A Determining product costs

For external product costing, costs are classified by the function they serve, as summarised below:



	Direct Materials	Direct Labour	Overhead	Selling Costs	Administration Costs
Definition	Materials traceable to goods or services produced Become part of product	Labour traceable to goods or services produced	All product costs other than direct materials and direct labour	Costs to market, distribute and service a product Order-getting and order-filling costs	Costs of research, development, and general administration
Examples	Wood in furniture	Chef in restaurant, machine operator on assembly line	Supervision, utilities, indirect materials, indirect labour	Advertising, customer service	Executive salaries, accounting, research and development

Product costs, for external financial reports, are manufacturing costs (direct materials, direct labour and manufacturing overhead) that are first added to an inventory account and remain in inventory until sold. The costs are expensed when the product is sold.

Period costs are non-production costs (selling and administrative) and are expensed when incurred.

Staircase 2.1: How to Calculate Product Cost in Total and Per Unit

Staircases can be implemented in your classes in different ways:

1 Demonstrate Staircase 2.1 from the textbook as an example in class.

2 Use Exercise 2-19 as a demonstration, in-class exercise. Students can work the exercise individually or in teams.

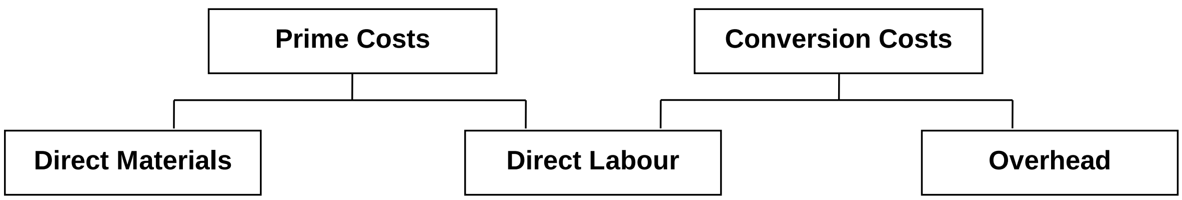
Discussion concept Q&A: Make a list of the costs that you are incurring for your classes this term. Which costs are direct costs for your college courses? Which are indirect costs?

Discussion concept Q&A: Focus on any object in the room. What do you think the direct materials for that object might include? What kind of direct labour might have worked on that object? What types of overhead costs might have been incurred by the company that produced it?

B Prime costs and conversion costs

Prime costs are direct materials costs and direct labour costs.

Conversion costs are the costs of converting raw materials into a final product (direct labour costs and overhead costs).



Staircase 2.2: How to Calculate Prime Cost and Conversion Cost in Total and Per Unit

The Staircase can be implemented in your classes in different ways:

1 Demonstrate Staircase 2-2 from the textbook as an example in class.

2 Use Exercise 2-20 as a demonstration, in-class exercise. Students can work the exercise individually or in teams.

C Period Costs

Period costs are all costs that are not product costs.

1 **Selling costs** are costs to market, distribute and service a product or service.

2 **Administrative costs** are costs associated with research, development and general administration of the organisation that cannot be assigned to either selling or production.

3 Preparing income statements

For income statements for external users, the two major functional categories of expenses are:

1 cost of goods sold (production costs)

2 operating expenses (non-production costs).

Production costs (direct materials, direct labour and overhead) are product costs because these costs attach to the product.

If the product is in inventory, the product cost is reported as inventory on the balance sheet.

If the product has been sold, the product costs are recognised as an expense (cost of goods sold) on the income statement.

Non-production costs (selling and administrative costs) are period costs that are expensed each period.

A Income statement: Manufacturing firm

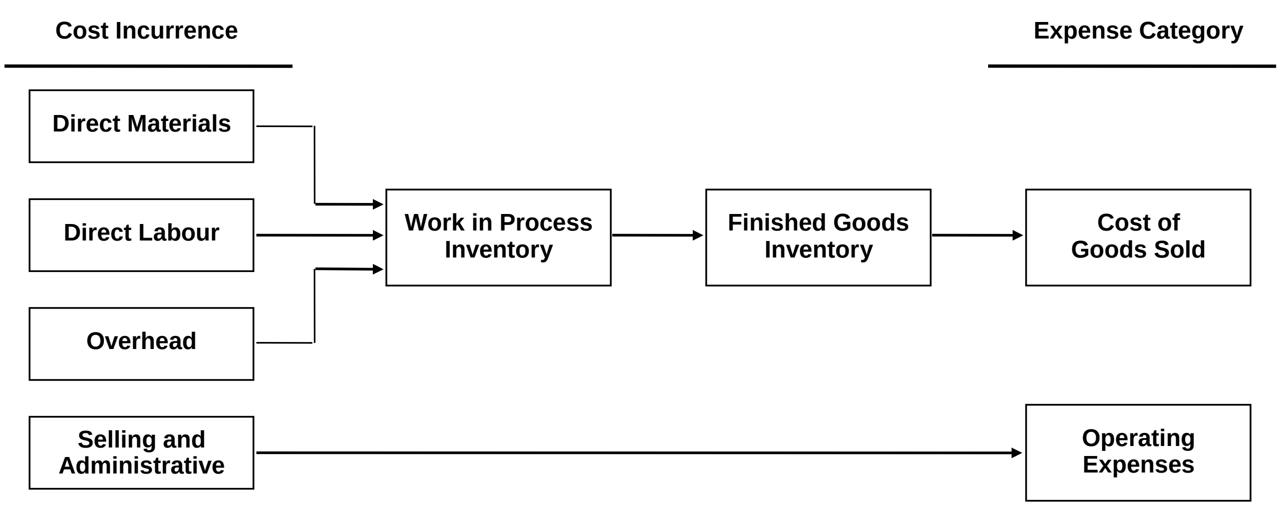
Cost of goods sold consists of the cost of direct materials, direct labour and overhead attached to the units *sold* during a period.

The **cost of goods manufactured** is the cost of direct materials, direct labour and overhead attached to the units *produced* during a period.

Work in process consists of all partially completed units in production.

Finished goods are goods that are complete and ready for sale.

Cost flows for a manufacturer are diagrammed below:



As direct materials, direct labour and manufacturing overhead are used in the production process, the associated costs are transferred to the Work-in-Process inventory account.

As the goods in process are completed, the associated costs are transferred to the Finished Goods inventory account.

As the goods are sold, the associated costs are transferred to the Cost of Goods Sold account. Thus, the product costs of direct materials, direct labour and manufacturing overhead are not expensed until the goods are sold.

Gross margin is the difference between sales revenue and cost of goods sold.

A manufacturing firm might have three inventory accounts on the balance sheet:

1 Raw Materials

2 Work in Process

3 Finished Goods.

Staircase 2.3: How to Calculate the Direct Materials Used in Production

Staircases can be implemented in your classes in different ways:

1 Demonstrate Staircase 2.3 from the textbook as an example in class.

2 Use Exercise 2-21 as a demonstration, in-class exercise. Students can work the exercise individually or in teams.

Staircase 2.4: How to Calculate Cost of Goods Manufactured

Staircases can be implemented in your classes in different ways:

1 Demonstrate Staircase 2.4 from the textbook as an example in class.

2 Use Exercise 2-22 as a demonstration, in-class exercise. Students can work the exercise individually or in teams.

Staircase 2.5: How to Calculate Cost of Goods Sold

Staircases can be implemented in your classes in different ways:

1 Demonstrate Staircase 2.5 from the textbook as an example in class.

2 Use Exercise 2-23 as a demonstration, in-class exercise. Students can work the exercise individually or in teams.

Staircase 2.6: How to Prepare an Income Statement for a Manufacturing Firm

Staircases can be implemented in your classes in different ways:

1 Demonstrate Staircase 2.6 from the textbook as an example in class.

2 Use Exercise 2-24 as a demonstration, in-class exercise. Students can work the exercises individually or in teams.

Staircase 2.7: How to Calculate the Percentage of Sales Revenue for Each Line on the Income Statement

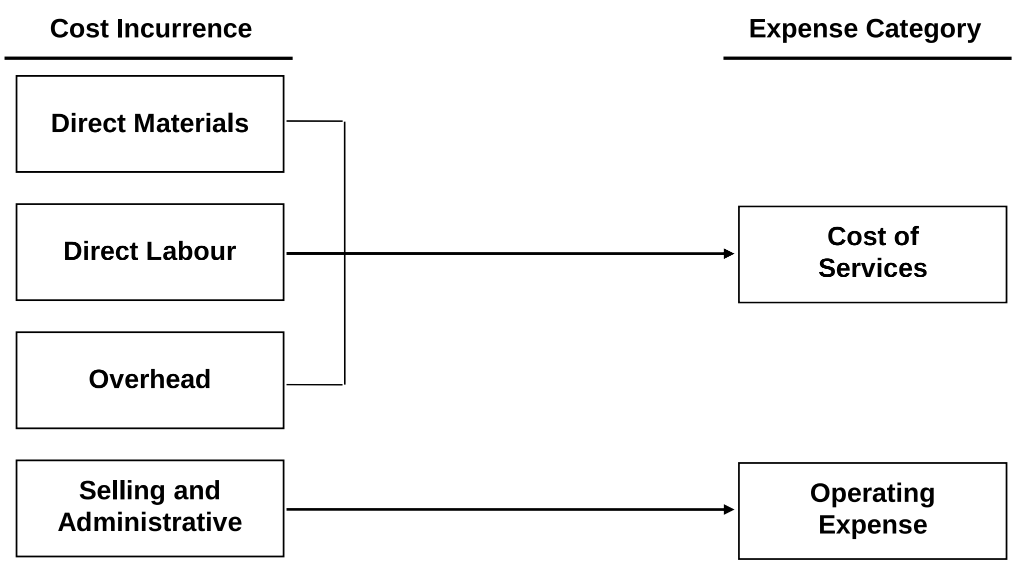
Staircases can be implemented in your classes in different ways:

1 Demonstrate Staircase 2.7 from the textbook as an example in class.

2 Use Exercise 2-25 as a demonstration, in-class exercise. Students can work the exercises individually or in teams.

B Income statement: Service organisation

Cost flows for a service firm are diagrammed below:



Staircase 2.8: How to Prepare an Income Statement for a Service Organisation

Staircases can be implemented in your classes in different ways:

1 Use Staircase 2.8 from the textbook as an example in class.

2 Use Exercise 2-26 as a demonstration, in-class exercise. Students can work the problem individually or in teams.

Applications

In-class group practice tests

See the end-of-chapter multiple-choice questions provided in the text for an in-class, group test or for use with a personal response system. With a group test, each student takes the quiz or test individually. Then ask students to break into teams of four or five to grade the test and discuss answers.

Follow-up experiential exercises

1 Obtain published financial statements of a manufacturing and a service organisation. Compare and contrast their income statements and balance sheets. Provide examples of product costs and period costs.

2 Obtain published financial statements of two manufacturing companies within the same industry. Compare and contrast their income statements and balance sheets. How does the cost of goods sold vary for the two companies? What are the gross margin percentages for the companies? How would manufacturing companies determine the price to charge their customers? How does this compare to a service organisation? Provide examples of product costs and period costs?

