BA 1130 ANALYTICAL TOOLS
MANAGERIAL INFORMATION AND CONTROL SYSTEMS FOR MARKETING STUDENTS

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF BUSINESS ADMINISTRATION
WINTER TERM OF 1992/1993

COURSE OUTLINE

INSTRUCTOR: Donald Brown

OFFICE: C 413
Office Hours: Tuesday & Thursday 10:00 to 12:00 A.M.
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COURSE DESCRIPTION

The purpose of this course is to familiarize the students who may not be accounting specialists with **Analytical tools of accounting.** Managers need information to carry out three essential functions in an organization:

1. to plan operations;
2. to control activities;
3. to make decisions.

In BA 1130, we will show what information the manager needs, where this information can be obtained, and how this information is used in carrying out these three objectives.

COURSE OBJECTIVES

To develop an ability to read and interpret financial statements.

Prepare Cost-Volume-Profit analysis (break-even).

To use analytical tools to make financial decisions.

To measure performance of managers.

To introduce accounting jargon and techniques.

EVALUATION:

Assignments	25%
Mid-Term	16%
Group Project	20%
Final exam	39%

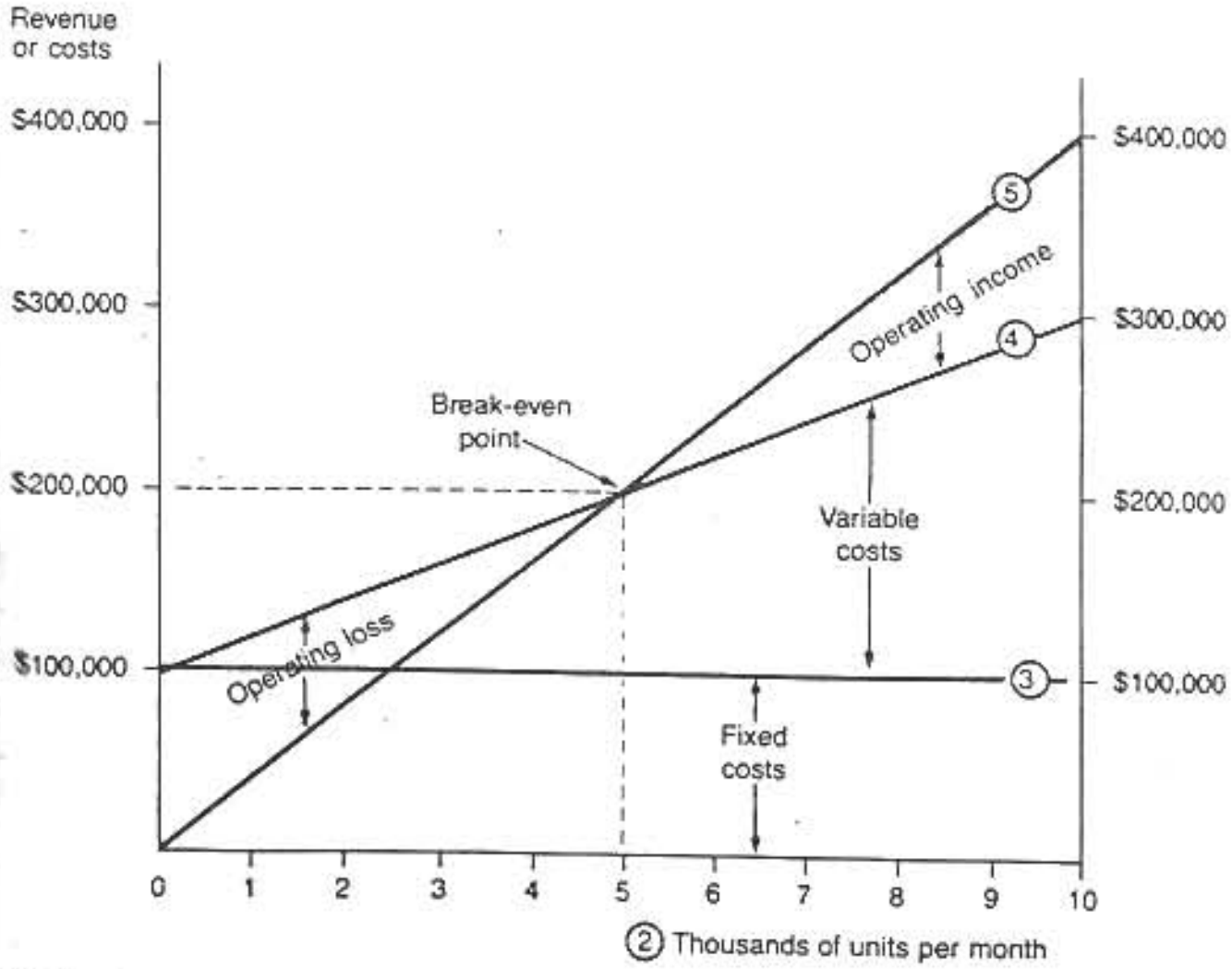
TEXT: R.F. Meigs, W.B. Meigs & W.P. Lam, Accounting - The Basis for Decision Making; 6th. Edition; McGraw-Hill, 1991.

OUTLINE:

Chapters		
	20	Analysis and interpretation.
	22	Job Order Costing (overview)
	23	Break-even analysis
	24	Performance evaluation
	25	Budgeting
	26	Relevant information & Analysis

DRAWING A "BREAK-EVEN" GRAPH

Monthly data for illustration.
Fixed costs and expenses: $100,000
Variable costs and expenses: $20 per unit
Sales price: $40 per unit



Steps in drawing the graph:

1. Mark the vertical axis in dollars, representing revenue and/or costs
2. Mark the horizontal axis using the appropriate volume index
3. Draw the fixed cost line at amount of fixed costs ($100,000) for all levels of volume
4. Draw the total cost line, starting at the amount of fixed costs at zero volume ($100,000) and increasing at the rate o variable costs ($20 per unit)
5. Draw the total revenue line starting at $0 and zero volume and increasing at the rate of the sales price per unit ($40

P5–18. **Identifying cost patterns.** Following are a number of cost behaviour patterns that might be found in a company's cost structure. The vertical axis on each graph represents cost, and the horizontal axis on each graph represents level of activity (volume).

Required:

1. For each of the following situations, identify the graph that illustrates the cost pattern involved. Any graph may be used more than once.
   a. Cost of raw materials, where the cost decreases by 5 cents per unit for each of the first 100 units purchased, after which it remains constant at $2.50 per unit.
   b. Electricity bill—a flat fixed charge, plus a variable cost after a certain number of kilowatt-hours are used.
   c. City water bill, which is computed as follows:

First 5,000,000 litres or less	$1,000 flat fee
Next 50,000 litres	0.0008 per litre used
Next 50,000 litres	0.0012 per litre used
Next 50,000 litres	0.0018 per litre used

   d. Depreciation of equipment, where the amount is computed by the straight-line method. When the depreciation rate was established, it was anticipated that the obsolescence factor would be greater than the wear and tear factor.
   e. Rent on a factory building donated by the city, where the agreement calls for a fixed fee payment unless 200,000 labour-hours are worked, in which case no rent need be paid.
   f. Salaries of maintenance workers, where one maintenance worker is needed for every 1,000 machine-hours or less (that is, 0 to 1,000 hours requires one maintenance worker, 1,001 to 2,000 hours requires two maintenance workers, etc.).
   g. Cost of raw material used.
   h. Rent on a factory building donated by the county, where the agreement calls for rent of $100,000 less $1 for each direct labour-hour worked in excess of 200,000 hours, but a minimum rental payment of $20,000 must be paid.
   i. Use of a machine under a lease, where a minimum charge of $1,000 is paid for up to 400 hours of machine time. After 400 hours of machine time, an additional charge of $2 per hour is paid up to a maximum charge of $2,000 per period.