

Sault College
of Applied Arts and Technology
sault ste. marie

Course Outline

BUDGETING AND COST ACCOUNTING
I

ACC201-7

*Revised
Aug. 1982*

revised JUNE 1981 - B. Campbell

BUDGETING & COST ACCOUNTING I
ACC201-7

TEXT: Cost Accounting - A Managerial Emphasis - by Horngren

REFERENCE TEXTS: Managerial Accounting, Revised E. Ray H. Garrison
Cost Accounting, Cashin & Polimeni

PRACTICE SET: Kellium Manufacturing Co.,
Job Order Costing

AIMS & OBJECTIVES:

To introduce to students the cost terms and basic methods and concerns of cost accounting.

PRE-REQUISITE: Successful completion of ACC102.

STUDENT EVALUATION:

There will be five regular tests and one final comprehensive test at the end of the semester. The weighting of the tests and practice set is as follows:

Regular (4)	50%
Final Test	40%
Practice Set	10%
	<u>100%</u>

Grading will be based on the following criteria:

80 and over	-	A
70 to 79	-	B
55 to 69	-	C
Below 55	-	I

Students receiving an "Incomplete" grade will be required to attend the make-up period at the end of the semester and write a comprehensive test at the conclusion of this period.

A student may be given an "R" grade (repeat) at the conclusion of regular classes; and be denied the right to attend the make-up period if he/she achieves an overall average below 40.

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2-3	2	<u>Cost-Volume-Profit Relationships</u> -breakeven point -relevant range -contribution margin
	-	TEST
4-5	3	<u>Job Costing</u> -comparison of job vs process costing -flow of product costs -documentation -overhead applications
	-	TEST
6	-	<u>Job Costing - Practice Set</u>
7	4	<u>Budgeting</u> -purpose & advantages -human aspects -types of budgets -procedure in budget preparation -master budget
8	5	<u>Flexible Budgeting</u> -comparison to the static budget -preparing & using a flexible formula -use of standards as a base -types of costs -preparation of the flexible budget -control through flexible budgets
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<u>WEEK NO</u>	<u>UNIT</u>	<u>TOPIC</u>
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12	7	<u>Direct Costing</u> -contribution approach vs traditional approach -advantages of the contribution method -timing
13-14	8	<u>Relevant Costs & the Contribution Approach</u> -historical costs & decision making -relevants, costs in choosing activity level -contribution approach to pricing -irrelevance of past costs TEST

UNIT NO 1

AN INTRODUCTION TO COST TERMS AND PURPOSES

GENERAL OBJECTIVE:

To gain a workable knowledge of the common cost terms to be found in this course.

SPECIFIC OBJECTIVES:

Variable & Fixed Costs

- 1) The student shall define the terms variable & fixed costs.
- 2) The student shall give 3 examples, from a manufacturing concern, of both variable and fixed costs.
- 3) The student shall define the term relevant range and explain its meaning in regards to variable as well as fixed costs.
- 4) The student shall state whether fixed costs can be controlled by management using discretionary costs as your reference.

Mixed Costs

- 1) The student shall define the term mixed costs.
- 2) The student shall state the formula for breaking a mixed cost into its variable and fixed components.
- 3) The student shall be given two columns of figures at different volume or activity levels, choose those sets of mixed costs, and break each into its variable and fixed parts.

Units and Total Costs

- 1) The student shall be given total accumulated figures determining the most meaningful base for the situation and state the results in those terms.
- 2) The student shall state the difference between unit costs and variable costs and give an example to illustrate the point.

Product and Period Costs

- 1) The student shall state the difference between product and period costs.
- 2) The student shall be given a list of manufacturing costs, separate the product from the period costs.
- 3) The student shall show how product and period costs are handled differently on the balance sheet by preparing a simple statement illustrating the difference.

Manufacturing Costs

- 1) The student shall list the 3 main categories of product costs.
- 2) The student shall define the terms prime and conversion costs in conjunction with the aforementioned product costs.
- 3) The student shall list costs which one would normally find under the 3 categories of manufacturing costs.
- 4) The student shall give a list of costs and expenses from a manufacturing concern prepare in good statement form the manufacturing and income statement, separating the 3 categories of manufacturing costs.

Direct and Indirect Costs

- 1) The student shall give a list of manufacture costs list those which are direct from the indirect, for a specific costing objective.
- 2) The student shall state in writing how direct-indirect relationship differs from the product-period relationship.

Perpetual and Periodic Inventories

- 1) The student shall state how the accounting treatment differs, for the purchase of inventories, under the two systems.
- 2) The student shall show how the income statement differs under the two systems by preparing sample statements.
- 3) The student shall list the added control features of a perpetual system over that of the periodical.
- 4) The student shall state any differences that may arise when physically taking an inventory.
- 5) The student shall give a possible business situation where a firm may only use part of either of the two systems.

UNIT NO 2

COST-VOLUME-PROFIT RELATIONSHIPS

GENERAL OBJECTIVE:

To gain an understanding as to how volume directly affects the profit performance of a business and relate this to management by way of breakeven analysis.

SPECIFIC OBJECTIVES:

Breakeven Point

- 1) The student shall state the breakeven equation, using both the equation technique and the contribution margin technique.
- 2) The student shall be able to draw a basic breakeven chart.
- 3) The student shall give a breakeven chart, label each line, point a meaningful area.
- 4) The student shall give a set of circumstances including a desired profit or loss, calculate the volume of sales or cost of sales.
- 5) The student shall state a minimum of 5 reasons that a breakeven chart loses some of its validity.
- 6) The student shall explain briefly why the economists breakeven chart is more realistic than that presented by accountants.

Relevant Range

- 1) The student shall be able to modify the conventional breakeven chart to take the relevant range into consideration.
- 2) The student shall give 3 examples where costs will change outside the relevant range for the chart.

Contribution Margin

- 1) The student shall state the contribution margin formula.
- 2) The student shall give a problem with sales, variable expenses, fixed expenses and a desired net income or the contribution margin replacing sales and variable expenses, and one of the above figures missing, calculate the missing item(s).
- 3) The student shall using the contribution approach, prepare an income statement to highlight the contribution toward covering the fixed costs.
- 4) The student shall using the contribution margin & knowing the fixed costs, calculate the required volume to either breakeven or produce a desired profit.

UNIT NO 3

JOB COSTING

GENERAL OBJECTIVE:

To gain an understanding of how a manufacturing concern would accumulate and control costs for a specific job.

SPECIFIC OBJECTIVES:

Comparison of Job vs Process Costing

- 1) The student shall give 3 examples for firms that would use job costing and 3 examples of typical process costing applications.
- 2) The student shall define how costs are accumulated under job costing.
- 3) The student shall define how costs are accumulated under process costing.

Flow of Product Costs

- 1) The student shall using T accounts diagram, the flow of costs in a manufacturing operation.
- 2) The student shall use the plant accounting terminology for each of the above T accounts.
- 3) The student shall give a problem in job costing, be able to prepare journal entries corresponding to the flow of costs.

Documentation

- 1) The student shall state what plant documentation would support each of the T account balances in the flow of costs.
- 2) The student shall be given a document, per no.1, complete its detail according to the information provided.
- 3) The student shall be able to design the documentation required on a job costing system.
- 4) The student shall outline how he/she would attempt to control costs by the use of production documents.

Overhead Application

- 1) The student shall list a minimum of 5 costs that would be recorded in overhead control.
- 2) The student shall detail how an overhead application rate is best calculated.
- 3) The student shall show his/her understanding of the two overhead accounts by stating the difference between the two.
- 4) The student shall be given an overhead rate and its base for applications, prepare the journal entry to charge overhead to a job.
- 5) The student shall be given a list of overhead costs, record them by preparing the required journal entry.
- 6) The student shall assuming an under/over application of overhead, state the alternatives available in disposing of this figure and your recommendation.
- 7) The student shall explain why there could be under/over application of overhead.

UNIT NO. 4

BUDGETING

GENERAL OBJECTIVE:

To understand how budgeting can serve the purposes of both management and the employer if mutually prepared and properly implemented.

SPECIFIC OBJECTIVES:

Purpose and Advantages:

- 1) The student shall state 3 main purposes of budgeting and the advantages to the business of each.

Types of Budgets:

- 1) The student shall define the meaning of the following budgets
 - continuous
 - master
 - departmental
 - cash

Procedure in Budget Preparation:

- 1) The student shall state in order, the budgets that would be prepared for a manufacturing business, to eventually result in a company master budget.
- 2) The student shall detail the considerations necessary in the preparation of a sales budget.
- 3) The student shall explain what additional information, over and above the sales budget, is required by production for them to determine the quantity of goods to produce.
- 4) The student shall give the 2 main purposes of preparing a cash budget after the operating budgets have been completed.

Master Budget:

- 1) The student shall be given basic accounting data, prepare the master budget, supported by the many related subordinate budgets.
- 2) The student shall ensure that the overall results of the master budget reflects the expectations of top management, or failing to do so revisions be made to supporting budgets to fall in line.

UNIT NO. 5

FLEXIBLE BUDGETING

GENERAL OBJECTIVE:

To understand the benefits of budget analysis in maintaining control over costs and how volume changes the cost per unit of product manufactured.

SPECIFIC OBJECTIVES:

Comparison to the Static Budget:

- 1) The student shall point out the important advantage of the flexible budget over the static budget.
- 2) The student shall state the one area where actual is compared with budget without first revising for volume differences.

Preparing and Using a Flexible Formula:

- 1) The student shall be given a list of costs at two levels of activity, devise a budget formula for them.

Use of Standards as a Base:

- 1) The student shall explain why standards are a good base upon which to build a flexible budget.

Types of Costs:

- 1) The student shall define the term variable cost.
- 2) The student shall differentiate between strictly variable and step variable costs, giving examples of each kind.
- 3) The student shall define mixed cost, give 2 examples of it.
- 4) The student shall be given costs at two levels of activity, calculate the fixed and the variable portion of such mixed costs.
- 5) The student shall define both discretionary and committed fixed costs and differentiate between them.

Preparation of the Flexible Budget:

- 1) The student shall be given a list of costs and their change due to volume changes, prepare a flexible budget and its related formula.

Control Through Flexible Budgets:

- 1) The student shall explain how control is now free from volume influences.

UNIT NO. 6

STANDARD COSTING

GENERAL OBJECTIVE:

To appreciate that standards properly prepared and communicated to production people can be a positive force for controlling costs and assisting plant personnel do their job efficiently.

SPECIFIC OBJECTIVES:

Type of Standards:

- 1) The student shall define basic cost standards, theoretically perfect standards and currently attainable standards.
- 2) The student shall select the standard he/she feels is most appropriate for industrial use and explain why it is best.

Budgets vs Standards:

- 1) The student shall explain the difference between a standard and budgeted amount when the standards are currently attainable.

Material - Setting Price and Quantity Standards:

- 1) The student shall state who is responsible for establishing material price standards, material quantity standards.
- 2) The student shall state how the material price standard would be established.
- 3) The student shall state how the material usage standard would be established and whether it would allow for any waste, scrap or spoilage.

Material - Pinpointing Variance Responsibilities:

- 1) The student shall state the point at which a price variance/a usage variance is highlighted.
- 2) The student shall list any documentation that a manufacturing concern could use to assist in highlighting these variances.
- 3) The student shall give reasons why it is so important to point out variances at the time of happening or before and to the person responsible.
- 4) The student shall state who is responsible for each variance in a medium sized manufacture concern.

Material - Variance Trade Offs;

- 1) The student shall give reasons why one unfavourable variance can be a trade-off for a favourable one.

Material - Journal Entries:

- 1) The student shall prepare journal entries to record the purchase of materials at other than the standard price with the price variance recorded at the time of purchase.
- 2) The student shall prepare journal entries to record the requisition of materials by the production department, at standard or at variance with the standards.

Material - Analysis of Variance:

- 1) The student shall given an actual purchase of materials, compare the actual price paid to the standard price and multiply this difference by the actual quantity purchased, to arrive at a material price variance.
- 2) The student shall given an actual quantity of materials requisitioned or used by production, compare the actual quantity used with the standard quantity for the number of units produced and multiply this difference by the standard price, to arrive at a material usage variance.

Labour - Setting Rate & Efficiency Standards:

- 1) The student shall state who is responsible for establishing labour rate standards, labour efficiency standards.
- 2) The student shall state how the labour efficiency standard would be established, and whether it would allow for any coffee breaks, down time, etc.

Labour - Handling Set Up Time:

- 1) The student shall determine how best to charge set-up time to a job in a machine operation.

Labour - Pinpointing Variance Responsibilities:

- 1) The student shall state the point at which a labour rate/efficiency variance is highlighted.
- 2) The student shall list any documentation that a manufacturing concern could use to assist in highlighting these variances.
- 3) The student shall state who is responsible for each of the two variances in a medium sized manufacturing concern.

Labour - Analysis of Labour Variances:

- 1) The student shall given an actual payroll, compare the actual rate paid to the standard rate and multiply this difference by the actual hours worked to arrive at a labour rate variance.
- 2) The student shall given actual time cards, compare the actual time used with the standard time allowed for the number of completed units and multiply this difference by the standard rate to arrive at a labour efficiency variance.

Overhead - Developing the Variable Rate:

- 1) The student shall state how the variable overhead rate would be established, assuming that all overhead costs can be broken into their variance and fixed parts.

Overhead - Journal Entries for Variable Costs:

- 1) The student shall prepare journal entries to record the incurrence of costs at other than standard price with the spending variance recorded at the time of record.
- 2) The student shall prepare journal entries to record the allocation of overhead to work in process, at standard or at variance with standard.

Overhead - Analysis of Variable Overhead Variances:

- 1) The student shall be given the actual cost of variable overhead, compare this actual production or actual hours worked, times the standard rate, to arrive at the spending variance.
- 2) The student shall be given the above mentioned actual production or hours worked, times the standard rate, compare this with the standard hours allowed for good production, times the standard rate per hour or unit, to arrive at the efficiency variance.

Overhead - Selecting the Activity Level for Fixed Overhead:

- 1) The student shall select that level of production which over a long period, of say, 5 years, will satisfy average consumer demand.
- 2) The student shall calculate the standard fixed overhead rate per unit, using the above determined normal capacity. (This rate should be used for costing purposes only and not for control).

Overhead - Journal Entries for Fixed Costs:

- 1) The student shall prepare journal entries to record the incurrence of actual fixed factory overhead, recorded as actually incurred.
- 2) The student shall prepare journal entries to record the application of fixed overhead to work in process, at the standard rate, times the actual production expressed in standard hours allowed.

Overhead - Analysis of Fixed Overhead Variances:

- 1) The student shall given the actual cost of fixed overhead, compare this actual cost to the standard overhead applied to work in process to arrive at the total fixed variance.
- 2) The student shall compare the actual cost to the budget for fixed overhead (this figure remains constant regardless of volume and is the basis for calculating a fixed standard cost per unit.) This provides the budget variance.
- 3) The student shall compare this budgeted figure with the fixed overhead applied to work in process (fixed overhead rate times standard hours allowed for the production.) This provides the capacity of volume variance.

Should Overhead be Split into Variable & Fixed:

- 1) The student shall determine whether a particular company is justified in attempting to break overhead costs into their variable and fixed portion.

UNIT NO. 7

DIRECT COSTING

GENERAL OBJECTIVE:

To understand the benefits, yet also the limitations, of a direct costing system.

SPECIFIC OBJECTIVES:

Contribution Approach vs Traditional Approach:

- 1) The student shall define the term "Contribution Approach."
- 2) The student shall define the term "Traditional Approach."
- 3) The student shall show how the two methods differ in statement presentation by preparing comparative statements.
- 4) The student shall prove which method provides the greater income during rising/falling inventories.

Advantages of the Contribution Method(direct costing):

- 1) The student shall explain why the contribution approach assists management in making product decisions.
- 2) The student shall state the formula, and be able to make the necessary calculations, to show how the contribution approach is used for break even decisions, whether it be a department, product, etc.

Timing:

- 1) The student shall show how the income of a period would be the same under either the traditional(absorbtion) approach of direct costing providing there is no change in the inventories, by preparing the income statements.
- 2) The student shall prepare the income statements to show the income difference should there be an inventory change.
- 3) The student shall explain that due to the above two points, the income difference is strictly a timing difference, and over a number of periods the incomes would equal.
- 4) The student shall state whether fixed costs should be written off to the periods expenses, or whether they should partially be charged to the work in process and finished goods inventory - explain your decision.
- 5) The student shall state the stand on direct costing as taken by the accounting and taxation bodies.

UNIT NO. 8

RELEVANT COSTS & THE CONTRIBUTION APPROACH

GENERAL OBJECTIVE:

To understand which costs are relevant in decision making, and to gain knowledge of the use of the contribution approach to selecting alternatives.

SPECIFIC OBJECTIVES:

Relevant Costs:

- 1) The student shall know the relevance of future costs in decision making.
- 2) The student shall distinguish between historical costs and relevant costs.
- 3) The student shall know the qualitative and quantitative factors associated with decision making.
- 4) The student shall give the costs that are relevant in short run and long run decisions.

Contribution Approach:

- 1) The student shall state the reason why the contribution method to pricing is superior to the absorption method.
- 2) The student shall show how prices can be set using a target pricing formula.
- 3) The student shall be able to use the contribution approach for decisions on:
 - (a) to make or buy product components
 - (b) to eliminate a product line or a department
 - (c) to buy or lease equipment
- 4) The student shall explain the relevance of historical costs in the replacement of equipment.