#### **GUIDED PRACTICE**

Class: Cost Classifications in Manufacturing Companies Date assigned: Sep 5 Date due: Sep 10 and 12 Time estimate to complete this assignment: 7.5 hours (two class periods of 1.25 hours each and 5 hours of pre and post class activities)

## Overview/Introduction

What is this lesson about? Why do we care?

This lesson covers the various classification used in a manufacturing environment to classify costs. Mastery of the concepts in this chapter is crucial to correctly handling costs, understanding which costs are included in the cost of a product, and calculating profit or loss correctly. If costs are not correctly classified, then products may be incorrectly costed, potentially resulting in incorrect sales prices and profitability of individual products. This could cause management to make wrong decisions about which products to eliminate, whether to outsource or manufacture a product/component in house and could ultimately result in a loss for the entire company.

#### Learning Objectives

#### Basic objectives

- 1. Define an array of commonly used terms that are used to track product and nonproduct costs in a manufacturing firm. A list of terms will be supplied.
- 2. Define commonly used terms that are used by managers for making business decisions in a manufacturing firm. A list of terms will be supplied.
- 3. Using the cost terms, calculate the total cost for a given cost category. This will be a simplified situation.
- 4. Distinguish between a traditional format and a variable format income statement.

#### Advanced objectives

- 1. Give examples for each of the cost terms in various cost objects.
- 2. Classify any and all costs into the appropriate cost category(ies).
- 3. Use the cost terms to prepare the two types of income statements. Describe how the balance sheet would differ for a manufacturing company versus service and merchandising companies.
- 4. Discuss the consequences of misclassifying costs in a manufacturing environment. Justify the importance of correctly classifying costs.
- 5. For a manufacturing firm systematically summarize (in both visual and verbal formats) how costs are categorized and used in managerial accounting.

## Preparatory Activities and Resources (2.0 hours):

- 1. Instructions for Guided Practice assignment.
- Read Chapter 2 in Managerial Accounting, 16<sup>th</sup> ed, Garrison in the ebook or hardcopy of the textbook (45 minutes).
- Open the Chapter 2 voice over PowerPoint file and complete the fill-in-the-blanks and activities in the Student Notes while listening to the audio and going through the slides. Both the PowerPoint file and Student Note file (Word format) can be found on Canvas in the Chapter 2 Module (60 minutes – 5 points).
- Complete the Chapter 2 LearnSmart Assignment on McGraw-Hill Connect (15 minutes 2.5 points).
- 2. Resources.
- Textbook: Managerial Accounting, 16<sup>th</sup> ed, Garrison, Chapter 2
- Voice over PowerPoint Presentation prepared by Instructor

#### Pre-class Exercises: Please complete by September 10.

- Submit the completed Student Notes on Canvas using the "submit student notes" link found in the Chapter 2 Module.
- The LearnSmart Assignment will be automatically graded by Connect. You must answer 20 questions correct to receive full credit for the assignment.

## Questions?

• Email the instructor at <u>diane.belger@sjsu.edu</u> or attend office hours (as listed on the Syllabus)

#### Advanced Practice

This is given for students to complete after the class meeting in which they work together.

Class: Cost Classifications in Manufacturing Companies Date assigned: Sep 10 Date due: Sep 12 Time estimate to complete this assignment: 3 hours

## Learning Objectives

Advanced objectives

- 1. Classify any and all costs into the appropriate cost category(ies) (class 1 and 2).
- 2. Use the cost terms to prepare the two types of income statements. Describe how the balance sheet would differ for a manufacturing company versus service and merchandising companies (class 2).
- 3. Compare and contrast how costs are categorized in manufacturing, merchandising and service companies (class 2).

## Activities & deliverables

- Complete the Chapter 3 homework assignment in McGraw-Hill Connect (7.5 points) by September 12. Each problem in the assignment has the points associated with it noted on the problem. The entire assignment is worth 7.5 points.
- The assignment is automatically graded when submitted and transferred to the Canvas Gradebook. If you do not submit the assignment by the due date, it will be automatically submitted and the work you have completed will be graded and automatically submitted to the Canvas Gradebook.
- You may have two attempts for the assignment. You must submit your first attempt in order to get the second attempt and you will start over on all problems. Your final grade is the highest of the two attempts.
- You may have two "check my work" for each problem in for each attempt.

#### Resources:

- Textbook: Managerial Accounting, 16<sup>th</sup> ed, Garrison, Chapter 2
- Student Notes completed with the voice over PowerPoint
- Examples completed in-class
- Individual/Group Quiz completed in class
- "Hints" in the online homework assignment

## Questions?

• Email the instructor at <u>diane.belger@sjsu.edu</u> or attend office hours (as listed on the Syllabus)

Topic or concept: Cost Classifications in Manufacturing Companies				
This topic will cover two class periods for a total of 150 minutes.				
<ol> <li>Basic objectives for preparatory work:         <ol> <li>Define an array of commonly used terms that are used to track product and nonproduct costs in a manufacturing firm. A list of terms will be supplied.</li> <li>Define commonly used terms that are used by managers for making business decisions in a manufacturing firm. A list of terms will be supplied.</li> <li>Using the cost terms, calculate the total cost for a given cost category. This will be a simplified situation.</li> </ol> </li> <li>Distinguish between a traditional format and a variable format income statement.</li> </ol>	<ul> <li>objects (class 1 and 2).</li> <li>2. Discuss the consequences of misclassifying costs in a manufacturing environment. Justify the importance of correctly classifying costs (class 1).</li> <li>3. Classify any and all costs into the appropriate cost category(ies) (class 1 and 2).</li> <li>4. Use the cost terms to prepare the two types of income</li> </ul>			
	<ul> <li>6. Compare and contrast how costs are categorized in manufacturing, merchandising and service companies (class 2).</li> <li>6. Compare and contrast how costs are categorized in manufacturing, merchandising and service companies (class 2).</li> </ul>			

	Time planned	Activity and rationale	Resources needed
CLASS ONE Beginning of class period	10 minutes	Ask if students had questions on the student notes they completed and answer any questions.	
Middle of period	45 minutes	<ul> <li>Students complete individual quiz (15 minutes)</li> <li>Put students in groups and have them complete the quiz as a group.</li> </ul>	<ul> <li>Multiple choice quiz over cost concepts.</li> <li>Immediate Feedback Assessment Technique quiz forms from Faculty Center</li> <li>Key for quiz (scratch off one quiz)</li> </ul>
End of period	10 minutes	Collect the quizzes and determine the team with the highest score. Award a prize to the winning team(s)	Prize for the winning team
CLASS TWO Beginning of class period	10 minutes	<ul> <li>Students complete quiz over terms covered in class period #1 in order to reinforce the cost concepts.</li> <li>Go over the quiz and review the answers. Students keep their quiz.</li> </ul>	Quiz over the terms covered in class period #1.
Middle of period	10 minutes	<ul> <li>Put students in groups and have them complete a complex cost classification problem. Go over the solution with the class.</li> <li>Students keep the problem.</li> </ul>	Complex cost classification problem.
Middle of period	30 minutes	<ul> <li>Give the students an example showing how to complete the two income statement formats using the cost classification.</li> <li>Students complete an example with different numbers and prepare the two income statements formats.</li> </ul>	<ul> <li>Completed example of how to prepare income statements using the two formats (variable and traditional)</li> <li>In-class problem handout for students to prepare income statements using the two formats.</li> </ul>

Middle of period	15 minutes	<ul> <li>Summarize how costs are classified in manufacturing and nonmanufacturing environments. Have students draw the summary in their notes.</li> <li>Students explain the summary to another student and compare and contrast how the two differ. Have a couple of students share their discussions with the class as time allows.</li> </ul>	manufacturing and nonmanufacturing environment.
End of period	10 minutes	<ul> <li>Summarize what we have done in chapter 2.</li> <li>Remind students of their homework assignments for the next class.</li> </ul>	

# Flipped BEFORE CLASS Work Plan Template

Basic learning objective	Activity and rationale	Instructions to students
<ol> <li>Define an array of commonly used terms that are used to track product and nonproduct costs in a manufacturing firm. A list of terms will be supplied.</li> <li>Define commonly used terms that are used by managers for making business decisions in a manufacturing firm. A list of terms will be supplied.</li> <li>Using the cost terms, calculate the total cost for a given cost category. This will be a simplified situation.</li> </ol>	<ol> <li>Activities and rationale apply to all 4 basic learning objectives</li> <li>Complete the fill-in-the blanks in the student notes while listening to the voice over PowerPoint.</li> <li>Complete the matching activity in the Student Notes in order to match the cost terms with the definition.</li> <li>Complete the exercises in the student notes and calculate the total cost for a given cost category.</li> <li>In the student notes, complete the fill-in the blanks on the two formats on income statements.</li> </ol>	Open the Chapter 2 voice over PowerPoint file and complete the fill-in-the-blanks and activities in the Student Notes while listening to the audio and going through the slides. Both the PowerPoint file and Student Note file (Word format) can be found on Canvas in the Chapter 2 Module. This assignment is worth 5 points. Submit the Student Notes on Canvas using the link in the Chapter 2 Module when you have completed the assignment.

Distinguish between a traditional format and a variable format income statement.	

## Flipped AFTER CLASS Work Plan Template

Advanced learning objective	Activity and rationale	Instructions to students
<ul> <li>4. Classify any and all costs into the appropriate cost category(ies) (class 1 and 2).</li> <li>5. Use the cost terms to prepare the two types of income statements. Describe how the balance sheet would differ for a manufacturing company versus service and merchandising companies (class 2).</li> </ul>	<ul> <li>End of chapter homework assignment in McGraw- Hill Connect (3 hours - 7.5 points).</li> <li>Classifying costs</li> <li>Preparation of income statements in two formats</li> </ul>	<ul> <li>Complete the Chapter 3 homework assignment in McGraw-Hill Connect (7.5 points) by September 12. Assignment is automatically graded and submitted to the Canvas Gradebook.</li> </ul>
<ol> <li>Compare and contrast how costs are categorized in manufacturing, merchandising and service companies (class 2).</li> </ol>		