SBQ2423 Cost Studies

### Introduction to Cost Studies

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## **Learning Outcomes**

- This course is designed to provide students with the knowledge and skills required for identifying cost components, build-up rates and undertake basic costing
- It includes cost estimating techniques, cost analysis and build-up rates. Focus is on simple buildings and basic civil engineering works.



### Introduction

 The process of preparing a build-up rates is very much similar to the process of preparing the cost for a meal. For instance, you need to determine the quantity of ingredients needed, the type and quantities of cutleries/tools needed and the number of persons required to prepare the meals.



## Introduction (continue)

- To give an overview of how a build-up rates is prepared, you will be asked to do a few simple exercises. This exercise will use the preparation of bread pudding as an example.
- All of the activities will lead to the development of the cost of bread pudding.
   This is known as breaking down the components of the build-up rate.



### Reminder...

- But before we could go on, the most important thing to prepare a bread pudding and eventually the cost is the recipe.
- The recipe will represent not only the description of works but also the brief method of statements. The recipe will serve up to 3-4 persons.



## The recipe – the ingredients

#### **Ingredients:**

- 1. 6 slices day-old bread
- 2. 2 tablespoons butter, melted
- 3. 1/2 cup raisins (optional)
- 4. 4 eggs, beaten
- 5. 2 cups milk
- 6. 3/4 cup white sugar
- 7. 1 teaspoon ground cinnamon
- 8. 1 teaspoon vanilla extract





## The recipe - Directions

#### **Directions**

- 1. Preheat oven to 350 degrees F (175 degrees C).
- Break bread into small pieces into an 8 inch square baking pan. Drizzle melted butter or margarine over bread. If desired, sprinkle with raisins.
- 3. In a medium mixing bowl, combine eggs, milk, sugar, cinnamon, and vanilla. Beat until well mixed. Pour over bread, and lightly push down with a fork until bread is covered and soaking up the egg mixture.
- 4. Bake in the preheated oven for 45 minutes, or until the top springs back when lightly tapped.



### Break it down #1

- As you know, most of the ingredients sold in standard quantities/sizes.
- However, you might not need the whole quantities of the items purchased. For instance, you may not need the whole cube of butter, sugar and carton of eggs.
- This is where you need to determine the actual quantities of the ingredients needed to prepare and the costs incurred.



## **Example of Answers**

- A loaf of bread?
- A cube of butter?
- A pack of raisins?
- A few eggs?
- A bottle of milk?
- Some white sugar?





### Break it down #2

- Next, you know need to identify the kitchen utensils needed and time required to prepare the menu. You can check from either the recipe or the directions stated in the recipe.
- You are also need to determine the costs involved for each of the kitchen utensils/tools.





## Example of answers

- An oven
- A pan
- A baking dish
- A mixing bowl
- A whisk
- A fork





### Break it down #3

- Finally, you need to determine the number of human resources required to prepare the menu according to the process and the approximate time needed to prepare the menu.
- Once again, just like the ingredients and the utensils, you also need to quantify the costs incurred for the human resources needed.





# Example of Answers – Human Resources

- A chef?
- A chef and sous chief?
- Mom?
- Mom and Sister?









# Example of Answers – Time Required?

- A chef 10 mins + 20 mins soaking time?
- A chef and sous chef 8 mins + 20 mins soaking time?
- Mom 12 mins + 20 mins soaking times?
- Mom and Sister- 10 mins + 20 mins soaking times?



### What's next?

 Now that you have listed and quantified the ingredients, tools, resources and time needed to prepare a bread pudding, how much is the costs for a bread pudding that can serve 3-4 person?





### **Your Answers**

- In your own currency eg. RM?, \$?, £?, €?, ¥?
  Etc.
- Please remember that you need to determine the costs of each tools listed such as the oven, the pan etc.



### Reflection

- Why do we need to know the ingredients of the said menu?
- Why did I asked you to list out the tools needed to prepare the menu you have chosen?





## Reflection (cont'd)

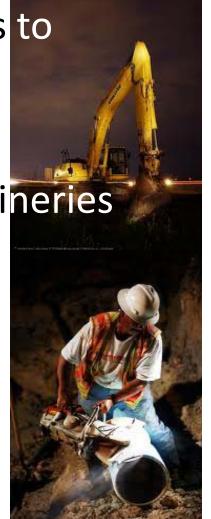
- What is the importance in knowing the process of preparing the selected menu?
- How did you manage to come out with the cost of the menu selected?
- What is the use of all four activities conducted in the class?



## Concluding remarks

- It is important to break down the costs to prepare a bread pudding in 3 namely;
- Ingredients quantities of materials
- Tools/cutleries no of plant and machineries
- Human resources number of plant operators, labours etc.







• It is also important to know how much time is needed to prepare the bread as it will reflect the costs incurred for the appointment of the human resources.





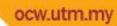
- By breaking down the components for the preparation of bread pudding according to the recipe and instructions it will help to prepare the costs of bread pudding.
- However, you need to bare in mind that the costs can only be prepared by referring to the recipe and the instructions stated.



- The recipe and the instructions is very much similar to the descriptions of work for a construction item.
- It also detailed out the job, materials, tools and the placement of the job.
- It is like a simple method of statement for any construction item.



 Hence, by breaking down the components according to the 3 major components will help you to prepare a more accurate construction build-up rate.





## The End

Thank You.