#### King Saud University College of Engineering Department of Industrial Engineering

# HW #4: Time Study

## **Homework Requirements:**

- 1. For the one task of the real life job you have chosen and reported in homework number two, fully describe it (story format comprehensive enough to produce the required measurable elements), write a list of measurable elements that comprise its sequence and direct time study these elements and evaluate the worker's performance on each element.
- 2. You are to perform the measurements for 3 cycles of the chosen task. From the measurements of the three cycles determine how many more cycles are required to achieve 95% confidence that the true values of the time for the measureable elements are within 5% of the sample average. Then, continue measurements up to 10 cycles if needed.
- 3. Determine the normal time for accomplishing the task, and finally, determine the standard time for accomplishing the task using appropriate allowances (personal, fatigue, delay and machine allowances).

#### **Instructions:**

- 1. This is a group assignment (maximum 2 students in each group).
- 2. This homework will be graded for:
  - a. thoroughness of task description,
  - b. skill of breaking down the chosen task into measurable elements,
  - c. skill of evaluating worker's performance, and
  - d. compliance to homework requirements, and report organization.
- 3. Watch out for spelling and grammar mistakes.
- 4. Refer to course policies for guidelines on assignments submission.

## Hint:

You may do some background check on the task you have chosen to get a sense of how to define measureable elements and how to evaluate workers' performance on such tasks.