

**Tishk International University  
Engineering Faculty  
Mechatronics Department**



# **ME 110/ Industrial Engineering**

**TOPIC: Work study**

**2<sup>nd</sup> & 3<sup>rd</sup> Grade- Spring Semester 2021-2022**

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# WORK STUDY



# INTRODUCTION



- With increasing complexities of the technological world, need to simplify the work system has been increasing day by day.
- Work study is an area of knowledge that addresses the problem of work simplification with the basic objectives of

**PRODUCTIVITY ENHANCEMENT,  
HUMAN COMFORT & SAFETY**



# DEFINITION



“Work study is defined as that body of knowledge concerned with the analysis of the work methods and the equipment used in performing a job, the design of an optimum work method and the standardization of proposed work methods.”



# Objectives of Work Study



1. To analyze the present method of doing a job, systematically in order to develop a new and better method.
2. To measure the work content of a job by measuring the time required to do the job for a qualified worker and hence to establish standard time.
3. To increase the productivity by ensuring the best possible use of human, machine and material resources and to achieve best quality product/service at minimum possible cost.
4. To improve operational efficiency.



# WORK STUDY



## METHOD STUDY

- Motion Study : Examine the job and finding more efficient method to perform it

## WORK MEASUREMENT

- Time Study : Determine the time necessary to perform a job and its elements



# METHOD STUDY

## (MOTION STUDY)



“Work methods analysis or Method Study is a scientific technique of observing, recording and critically examining the present method of performing a task or job or operation with the aim of improving the present method and developing a new and cheaper method.”



# METHOD STUDY PROCEDURE



**Select** the job or process or the operation to be studied.

**Record** all relevant facts about the job or process or operation using suitable charting techniques.

**Examine** critically all the recorded facts, questioning the purpose, place, sequence, person

**Develop** the new method.

**Define** the new method

**Install** the new method as standard practice.

**Maintain** the new method for the job/process/operation



# WORK MEASUREMENT (TIME STUDY)



“ It is defined as the application of techniques designed to establish the work content of a specified task by determining the time required for carrying out the task at a defined standard of performance by a qualified worker”



# WORK MEASUREMENT PROCEDURE



**DESCRIBE** the given work for measurement



**BREAK** the job into elements



**MEASURE** the performance of operator



**DETERMINE** the basic time



**PROVIDE** time allowance for fatigue etc..



**DETERMINE** standard time

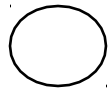


# RECORDING SYMBOLS



## Standard Symbol

## Name of Activity



Operation



Transportation/Movement



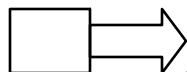
Inspection



Delay/ Temporary storage








Storage



Combined Activity



Table 5.2 Symbols used in Process Chart

Symbol	Activity	Purpose for which it is used
	Operation	Indicates the main steps in a process, method of procedure, usually the part, material or product concerned which is modified or changed during the operation.
	Transport	Indicates movement of workers, material or equipment from place to place.
	Inspection	Indicates any type of inspection, check, measurement, visual scrutiny for quality and/or quantity.
	Temporary storage or delay	Indicates a delay in the sequence of events.
	Storage	Indicates a controlled storage in which material is received into or issued from stores under some form of authorization or an item is retained for reference purposes.



**THANK YOU**

