

ISE 307 Summer Internship – Report Guidelines (MANUFACTURING)

A report should begin with a few pages containing the summary of work done and the content of the work accomplished for each week (according to a specific format that will be provided later). The rest of the report should contain the following sections, should be in a continuous text format, with a length of at most 10 pages.

Section 1. Company Identity

Fill out the identity card about the company.

Company Name:	
Location:	
Date of Establishment:	
Ownership:	
Area (m ²)	
Outdoors:	
Indoors:	
Number of Employees	
White Collar:	
Blue Collar:	
Number of IEs:	
Annual Production Capacity for Major Products/Services	

Section 2. Organizational Structure and Manufacturing System

Describe the company and its production system by addressing the following items.

- Provide general information about the company: (its sector, products, sales volume, its suppliers and customers, etc.)
- Describe the organization of the company by providing:
 - Organization chart
 - Relations between units and the responsibilities of each unit
 - Duties of industrial engineers in the organization

- Provide an overview of the manufacturing system (identify the resources, inputs, and constraints)
 - Prepare a chart that shows the relations between the major components such as marketing, manufacturing, finance, and purchasing
- Provide a process chart for a major product and/or subassembly¹. Identify productive and non-productive elements in the manufacturing process of this product.
- Categorize the manufacturing system of the company, indicating whether it is continuous, discrete, job shop, flow shop, project shop, etc.
- Provide the layout of the manufacturing system (state whether it can be categorized as process/functional layout, product layout, fixed-position layout, cellular, etc.)
- Discuss production operations planning activities
 - Who is responsible for production planning decisions?
 - How are these decisions made?
- Discuss company's manufacturing technologies (JIT, CIM, FMS, CAD/CAM)
- Discuss how engineering economic decisions are made in the company (capital/operational expenditures, investment decisions, debt/equity financing, replacement decisions, etc.).

Section 3. Analysis of an Activity

Analyze an activity² of your choice belonging to the manufacturing system of the company and describe this activity in detail (include work measurement and time study related analyses and provide appropriate data such as photos, figures, charts, etc.) using maximum 3 pages.

¹ Subassembly refers to the components of a major product. Example: if a car is the main product/assembly for a car manufacturer, then engine, brakes or tires can be subassemblies.

² Such as (but not limited to) packing, inspection, assembling, etc. in a manufacturing system.