

QUALITY MANAGEMENT 444

Tutorial 6 (Week 6)

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You have recently been appointed as an Industrial Engineer at *[insert the assigned organization]*. In this role, you aim to ensure that the quality of the organization's outputs—whether products, services, or both—is systematically managed and continuously improved by applying the Six Sigma methodology.

Tutorial Instructions:

1. Identify Quality Problems

- ⊙ Select three quality-related problems currently affecting the organization (use the problems identified in *Tutorial 5* as your basis).

2. Apply the DMAIC Framework

- ⊙ For each problem, explain how you would apply the DMAIC cycle (*Define, Measure, Analyze, Improve, Control*).
- ⊙ Clearly describe the purpose and activities of each phase, linking them to your selected problems.

3. Detail Deliverables and Activities

- ⊙ For every phase of DMAIC, specify:
 - ✓ The deliverables you would expect.
 - ✓ The key questions that need to be answered.
 - ✓ The activities and actions to be undertaken.

4. Specify Tools and Techniques

- ⊙ Identify and justify the quality tools you would use in each phase of the DMAIC cycle (e.g., Pareto charts, cause-and-effect diagrams, control charts – refer to Chapter 16).



Upload to SUNLearn (one submission per group)
✓Deadline is 17 September at 13h00