

**I CERTIFY THAT ALL SEMESTER 3/TPS OUTCOMES HAVE BEEN  
COMPLETED:**

**DATE**

---

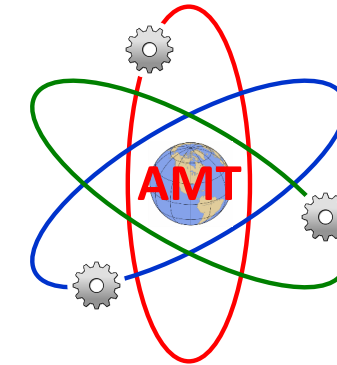
**SIGNATURE**

---

*AMT Leader*

**TOYOTA**

***Advanced Manufacturing Technician***



**Manufacturing Core Exercises**

**MCE 3: TPS-M**

# Outcomes

## AMT Semester 2 Manufacturing Core Exercise Activity Outcomes

### TOYOTA PRODUCTION SYSTEM for MAINTENANCE

- Complete initial TPS-M training.
- Explain the "Value Added Product."
- Explain the Maintenance "Value Added Product."
- Explain Value-Added Work and Necessary Work.
- Explain how Toyota earns profit.
- Draw/fill-in all elements of the TPS-M House.
- Explain each element of the TPS-M House.
- State each of the 3 M's and the 7 Mudas.
- Explain each of the 3 M's and the 7 Mudas.
- Complete Standardized Work Exercise (JIS/WIS).
- Complete Problem Solving Work Exercise (Step 1)
- Complete Kaizen Exercise (School)
- Complete Pokayoke Exercise (School)
- Complete Takt Time Exercise.
- Identify an example of Heijunka.
- Identify 2 examples each of Mura, Muri and Muda.
- Re-take and Pass the TPS-M tests (end of semester).
- Submit an essay on TPS.

# TPS Essay

You have completed your TPS for Maintenance (TPS-M) Exercise Outcomes. You have also participated in activities to deepen your understanding of TPS. As your understanding of TPS has increased you should have begun seeing your workplace and your school in a different light. This essay will reflect on whether or not you think that your workplace or school exhibits good TPS practice.

Your assignment is to write an essay discussing the TPS condition of your workplace or school.

Another goal of the essay is to give you the opportunity to develop your good writing skills, both in using effective writing basics such as grammar, structure, and spelling, and in effectively communicating a message.

Guidelines:

- Length: 1-3 pages.
- Content: Items to consider include what TPS practices that you see in your workplace or school. What TPS practices do you think that your work place or school lack? Do you see how the practice of, or lack of, good TPS practice affects how well that your company does business? If it was your decision, what is the first way that you would strengthen the practice of TPS in your workplace or in your school? There is much more that can be included.
- This essay does not need to be foot-noted unless your writing needs it. Use any accepted writing standard or structure that you wish, but be sure to use correct practices and techniques.
- Write in any medium that you wish (paper, computer, etc.) The final product should be in electronic form so that it can be both e-mailed and saved as a file. It should be in a form that can easily be converted to Microsoft Word.
- Double check spelling!
- Print a copy of your final product.
- E-mail your file to the following parties:
  - ◊ AMT Leader: \_\_\_\_\_ (e-mail address)
  - ◊ School AMT Coordinator: \_\_\_\_\_ (e-mail address)
  - ◊ North American Toyota AMT Regional Assistant: [jim.mattingly@tema.toyota.com](mailto:jim.mattingly@tema.toyota.com)
  - ◊ Additional parties as directed: \_\_\_\_\_ (e-mail address)

## DUE DATE

---

**COMPLETE THE END-OF-SEMESTER TPS-M TESTS. SCORE AT  
LEAST 80% ON BOTH.**

**DATE**

---

Include Examples here.

# **TPS-M Basics**

**EXPLAIN THE VALUE-ADDED PRODUCT.**

**DATE**

---

**EXPLAIN THE MAINTENANCE VALUE-ADDED PRODUCT.**

**DATE**

---

**EXPLAIN VALUE-ADDED WORK AND NECESSARY WORK.**

**DATE**

---

**EXPLAIN HOW TOYOTA EARNS PROFIT.**

**DATE**

---

**ON THE BLANK FORM DRAW THE HOUSE OF TPS-M.  
CORRECTLY FILL IN AT LEAST 80% OF CONTENT.**

**DATE**

---

**CORRECTLY EXPLAIN EACH ELEMENT OF THE TPS-M HOUSE.**

**DATE**

---

**STATE EACH OF THE 3Ms AND THE 7 MUDAS.**

**DATE**

---

**CORRECTLY EXPLAIN EACH OF THE 3Ms AND THE 7 MUDAS.**

**DATE**

---

**IDENTIFY AND EXPLAIN 2 EXAMPLES EACH OF MURA, MURI, AND  
MUDA.**

**DATE**

---

Include Examples here.

**IDENTIFY AND EXPLAIN AN EXAMPLE OF HEIJUNKA.**

**DATE**

---

Include Example here.

**COMPLETE THE STANDARDIZED WORK EXERCISE.**

**DATE**

---

**COMPLETE THE PROBLEM SOLVING EXERCISE.**

**DATE**

---

Include an example of a real Step 1 Problem Solving example here (if your workplace or school has it):

**COMPLETE THE KAIZEN WORK EXERCISE.**

**DATE**

---

Include Before/After Examples here.

**COMPLETE THE TAKT TIME EXERCISE.**

**DATE**

---

Include Example here.