<table>
<thead>
<tr>
<th>TSC Category</th>
<th>Maintenance Coordination</th>
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<tbody>
<tr>
<td>TSC Description</td>
<td>Establish and implement organisational maintenance strategies and systems for equipment and plant</td>
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<tr>
<th>TSC Proficiency Description</th>
<th>Level 1</th>
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<td>Coordinate the conduct of maintenance, setting up maintenance work requirements and creating work plans for maintenance activities</td>
<td>Facilitate implementation of proactive maintenance strategies, determine maintenance-related schedules and providing maintenance-related assistance to non-maintenance personnel</td>
<td>Develop organisational maintenance plans, in accordance with overall maintenance strategies and systems</td>
<td>Evaluate the organisational maintenance strategies and systems for improvement and enhancement</td>
<td>Establish the organisation’s maintenance strategies and systems, in accordance with organisational policies and procedures</td>
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**Knowledge**

- Planning and maintenance practices
- Process and normal operating parameters
- Organisational procedures and relevant regulatory requirements
- Workplace safety and health (WSH) requirements

- Equipment manufacturers’ recommended inspection, servicing and related schedules
- Requirements of proactive maintenance strategies being implemented
- Operating principles and procedures for equipment and/or plants
- Purposes and processes for data collection in proactive maintenance strategies
- Workplace safety and health (WSH) requirements

- Types of maintenance programmes and their benefits
- Equipment functionality operation sequences, working purposes and interactions between individual units or components
- Methods to determine resources needed for maintenance activities
- Methods and parameters used to calculate duration of specific maintenance activities
- Organisational policies and procedures relating to repair, maintenance documentation, and safe disposal of waste materials
- Procedures for equipment operating and control, dismantling and reassembly, to be applied during maintenance activities

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- Hazards associated with manufacturing activities

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### SKILLS FRAMEWORK FOR PRECISION ENGINEERING

**TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

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#### Abilities

- Set up maintenance activity requirements
- Examine equipment and machine specifications, service requirements and procedures for maintenance intervals and process advisory
- Develop work plans and work schedules for maintenance
- Construct and compare readings, measurements and recordings to relevant specifications
- Recognise and compare historical data, future equipment use, production requirements and standard operating procedures to be job ready
- Contribute ideas to evaluate potential risks at the workplace
- Improve work plans to ensure maintenance programmes retain workplace output

- Consult with relevant personnel on appropriate inspections, servicing and schedules
- Plan proactive maintenance tasks in alignment with maintenance and production schedules
- Recommend changes to improve plant and/or equipment reliability in accordance with organisational procedures
- Recommend improvements to reliability strategies

- Develop overall maintenance schedules in consideration for staff movement, operations and optimum timings for plant and/or equipment shutdown
- Develop maintenance procedures and plans
- Verify maintenance schedules’ and plans’ capability for meeting all relevant and required outputs
- Manage changes requested to maintenance schedules from the production function
- Ensure maintenance activities are carried out correctly, in line with agreed organisational processes and procedures
- Determine resources required to undertake maintenance activities
- Maintain documentation of maintenance data

- Evaluate the impact of maintenance programmes and improvement activities
- Review risk assessments associated with maintenance strategies and systems
- Consult and seek endorsement from stakeholders on improvements to maintenance processes and procedures
- Keep abreast of new technological developments in maintenance strategies and systems
- Develop matrix of competency and skills for maintenance teams
- Establish departmental budgets to support maintenance strategies and systems
- Create and maintain visual management records and documentation to support maintenance strategies and systems
- Seek stakeholders’ endorsement on budgets for maintenance strategies and systems
- Keep abreast of new technologies in manufacturing systems and processes

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- Identify the unsafe acts or conditions present and recommend corrective actions to management
- Attain clearances for any necessary costs for the maintenance
- Acquire authorisation from management for maintenance timing to optimise processes and production