

Placement Student Mechanical Engineer

Role Purpose:

The Engineering student will use their existing engineering and mathematical knowledge to analyse machinery reliability at the established Business Units. The work will range from office-based studies of manuals to understand how machinery operates, desktop reviews of maintenance and machinery operational history using the maintenance management system, though to work on the shop floor to study maintenance and operational practices, to holding interviews with operators, maintainers and (where appropriate) customers. The intent is to develop recommendations for improving machinery reliability, including investigating and solving complex problems which reduce reliability and help CPI constantly finding creative ways of working.

As part of a multidisciplinary team, or individually, they will support colleagues with the delivery of ongoing operational and maintenance practices. Through a wide diversity of reliability focussed projects, they will gain experience developing and implementing maintenance and engineering practices across a wide range of machinery and supporting utility and other systems, appreciating how quality asset management standards are implemented in a modern R&D facility and appreciating the commercial implications of real-world engineering decisions.

Key Responsibilities:

- To maintain consistent and documented compliance with all relevant Safety, Health and Environmental (SHE), quality and best practice requirements.
- To assist in the review of machinery reliability, developing both quantitative and qualitative commentary to determine current status.
- To facilitate cross discipline machinery improvement focus groups to develop implementable plans for delivering quantifiable improvement in machinery reliability
- To follow Change and Modification procedures when supervising projects that deliver against the implementable plans.
- To coach, educate and train individuals in appropriate techniques to improve machinery reliability data capture using a range of software tools (including the CMMS)
- To facilitate and/or lead root cause analysis of technical issues affecting nominated machinery reliability
- To learn how to provide clearly documented records of technical data, decisions, methodologies, calculations, and software use in accordance with ISO/FDA quality standards.
- To support the Procurement and Engineering teams for specification, tendering, factory and site acceptance tests for relevant changes to equipment.
- To help prepare and provide reports for the business as required.
- To take ownership in agreeing weekly workplans with line manager, mentor, project manager(s) and other relevant stakeholders, and delivering plan to agreed schedule.

Direct reports: No direct reports

Placement Student Mechanical Engineer

Person Specification

Education / Qualifications:

Essential:	Desirable:
Currently studying for Degree level (or equivalent) in: <ul style="list-style-type: none"> • Mechanical/Electrical/Chemical Engineering (or similar) • Mathematics (or related) 	Studying for Masters (or equivalent) MEng or MSc

Competencies and behaviours	
Leadership (Core) <ul style="list-style-type: none"> • Respects and values the diversity of talents, skills and backgrounds that others bring to joint projects / work. • Has a positive influence on those in contact with. • Gains the respect and confidence of colleagues and supports them in achieving their goals and targets. • Aligns own behaviours and actions to CPI's values, vision and goals. 	Decision Making (Core) <ul style="list-style-type: none"> • Within area of expertise recognises, identifies and defines problems. • Generates and evaluates alternatives, draws conclusion and analyses risk. • Takes timely and correct action using established methods to ensure effective solutions are implemented. •
Influencing (Core) <ul style="list-style-type: none"> • Communicates in a clear and concise manner, covering all relevant points in a timely manner. • Uses the appropriate route and format to communicate. • Confirms understanding of others communication. • Asks questions to understand other people's viewpoints. 	Developing self and others (Core) <ul style="list-style-type: none"> • Knows own career aspirations and clearly communicates them to relevant colleagues whilst actively working to achieve goals. • Sets personal development goals and deploys strengths to achieve them. • Takes responsibility for one's own performance and actions, and invites and incorporates feedback from a variety of sources. • Regularly reflects on own capabilities to identify development priorities.
Collaboration (Core) <ul style="list-style-type: none"> • Establishes effective working relationships with other colleagues • Builds and maintains a network of internal and external contacts • Actively seeks, values and incorporates different views and ideas to broaden their prospective. 	Delivery (Core) <ul style="list-style-type: none"> • Plans, prioritises and leads own area of work to deliver specified and agreed outcomes (time and standard). • Accurately scopes out length and difficulty of tasks, and repeatedly estimates correct amount of time needed for tasks. • Refers to lessons learnt from other projects/ tasks with related scope. • Acts with minimal supervision or direction.

Placement Student Mechanical Engineer

- Pays attention to detail and delivers accurate and high quality outputs.

Knowledge and Experience:

Essential:	Desirable:
<ul style="list-style-type: none"> • Has a good working knowledge and practical experience of general machinery operations • Has a general understanding of machinery maintenance practices, potential modes of failure and troubleshooting. • Has a general understanding of key engineering principles relating to machinery operation e.g. electrical power, hydraulics, pneumatics, mechatronics, control and instrumentation • Has knowledge of statistical analysis and mathematical modelling to be able to quantify, trend and extrapolate data from the CMMS and machinery operations and present the same in meaningful ways • Can engage with experience machine operators and maintainers to capture qualitative information in support of machinery investigations 	<p>Has experience in the following areas:</p> <ul style="list-style-type: none"> • Presenting quantitative and qualitative data in a succinct way to draw meaningful conclusions • Engaging with suppliers to source replacement components • Developing Standard Operating Procedures • Root Cause Analysis techniques