

NELSON MANDELA
UNIVERSITY

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STEP SCIENCE / TECHNOLOGY
ENGINEERING / PRODUCTION

Are you part of the next
generation of leaders?

**INCLUSION FOR
INNOVATION**

Four part leadership development workshop series for early to mid career individuals in Science, Technology, Engineering and Production (STEP).

Inclusion for Innovation workshop series

Complete one, or all, of the following short courses:

- *Team Science*
- *Industry 4.0*
- *Lean Yellow Belt*
- *Project Management for Manufacturing*



TEAM SCIENCE: Personality styles, emotional intelligence and neuroscience – OFFERED BY THE DEPARTMENT OF INDUSTRIAL ENGINEERING IN COLLABORATION WITH WELA AND merSETA

CONTENT	TARGET PARTICIPANTS	COURSE OBJECTIVES	DATE, DURATION AND COST
<ul style="list-style-type: none"> - Understanding personality styles in the workplace: - Identification of your dominant personality style and your strengths - Recognition of shadow behaviours that emerge under pressure fueling micro-aggressions and implicit biases - Gaining insight into preferred mindsets and behaviours that facilitate productivity and group cohesion - Fostering Emotional Intelligence to gain self-mastery: - Gaining mastery over thoughts and emotions that unintentionally derail processes in the workplace - Gaining mastery over neurochemical patterns of thinking that reinforce micro-aggressions and implicit biases 	<p>Any professionals working in an environment with a specific focus area.</p>	<p>Upon completion, it is envisioned that participants would have acquired insight into:</p> <ul style="list-style-type: none"> - Personal and professional growth strategies for application in the workplace - An awareness of subliminal processes that reinforce micro-aggressions and implicit biases in the workplace 	<p>Format:</p> <ul style="list-style-type: none"> - Pre-assessments - Pre-workshop questions - 2 interactive sessions (17h00 – 19h00) <p>Cost: R2500 per person</p> <p>Date: 30 and 31 March 2021</p> <div style="border: 1px solid black; background-color: #f1c40f; padding: 5px; text-align: center; margin: 10px 0;"> <p>ONLINE COURSE CLASSES HELD VIA MICROSOFT TEAMS</p> </div> <div style="border: 1px solid black; background-color: #34495e; color: white; padding: 5px; text-align: center; margin: 10px 0;"> <p>A minimum number of participants are required for this SLP and if this is not met, the course will be cancelled. Payment is required prior to attendance, cancellation fees applies</p> </div> <div style="border: 1px solid black; background-color: #f1c40f; padding: 5px; text-align: center; margin: 10px 0;"> <p>For more information: Nicole Truter Nicole.truter@mandela.ac.za 041 504 3645</p> </div>





Industry 4.0 – OFFERED BY THE DEPARTMENT OF INDUSTRIAL ENGINEERING IN COLLABORATION WITH WELA AND merSETA

CONTENT	TARGET PARTICIPANTS	COURSE OBJECTIVES	DATE, DURATION AND COST
<ul style="list-style-type: none"> - Historical Progression of I4.0 - Factors influencing the transition from the 3rd to the 4th Industrial Revolution (from automation to smart factories) - Technologies and trends enabling the Fourth Industrial Revolution - Social and economic opportunities and drawbacks of the Fourth Industrial Revolution - New business models within the Fourth Industrial Revolution - The Fourth Industrial Revolution for industry (Industry 4.0) - Leadership & upskilling of the general workforce <p>Includes practical component – Automation demo on SWEAT LINE</p>	<p>Professionals working in a Science, Technology, Engineering and Production related environment</p> <p>Any person interested in understanding the Fourth Industrial Revolution</p>	<p>On completion you will have an understanding of:</p> <ul style="list-style-type: none"> - The principles of I4.0 - The impact of I4.0 - Management skills required for I4.0 	<p>Format:</p> <ul style="list-style-type: none"> - 2 sessions (17h00 – 19h30) - Real-world case studies - Recorded tutorials <p>Cost: R2500 per person</p> <p>Date: 28 and 29 April 2021</p> <div style="border: 1px solid black; background-color: orange; padding: 5px; text-align: center; margin: 10px 0;"> <p>ONLINE COURSE</p> <p>CLASSES HELD VIA MICROSOFT TEAMS</p> </div> <div style="border: 1px solid orange; background-color: #333; color: white; padding: 10px; margin: 10px 0;"> <p>A minimum number of participants are required for this SLP and if this is not met, the course will be cancelled. Payment is required prior to attendance, cancellation fees applies</p> </div> <div style="border: 1px solid orange; background-color: orange; padding: 10px; margin: 10px 0;"> <p>For more information: Nicole Truter Nicole.truter@mandela.ac.za 041 504 3645</p> </div>





SIX SIGMA:Yellow Belt – OFFERED BY THE DEPARTMENT OF INDUSTRIAL ENGINEERING IN COLLABORATION WITH WELA AND merSETA

CONTENT	TARGET PARTICIPANTS	COURSE OBJECTIVES	DATE, DURATION AND COST
<ul style="list-style-type: none"> Lean Philosophy and the evolution of lean systems Lean waste categories and approaches to identifying waste Quality systems for control and assurance Use Six Sigma tools to achieve breakthroughs in quality and cost reduction Reduce or eliminate time-based inefficiencies in transactional processes Achieve bottom line and “soft” cost savings Gain a full understanding of what Six Sigma is and how to implement through the DMAIC model Learn methods to break down your most difficult processes and rebuild them with less variance and waste Learn how to integrate Six Sigma with waste elimination, the basis of Lean models Communicate the value of your Six Sigma process improvements to gain buy-in from both upper management and staff Overcome the barriers to process optimization Software: Excel 	<p>This course is aimed at lean manufacturing implementation team leaders, production team leaders, process and Industrial Engineering and middle management.</p>	<p>Enable participants to map manufacturing or service processes and identify waste, and to streamline processes.</p>	<p>Format:</p> <ul style="list-style-type: none"> 8 evening sessions (17h00 – 19h00) Practical tasks Recorded tutorials <p>Cost: R3200 per person</p> <p>Date: 6, 13, 20, 27 May; 3, 10, 17, 24 June 2021</p> <p>Pre-requisites:</p> <ul style="list-style-type: none"> Matric certificate (with a pass in Maths (preferably)) Employment in an Operations/Production/Quality Environment Relevant qualification <div style="border: 1px solid black; background-color: #FFD700; padding: 5px; text-align: center;"> <p>ONLINE COURSE CLASSES HELD VIA MICROSOFT TEAMS</p> <p>NOTES AND ASSESSMENTS SUBMITTED VIA MOODLE</p> </div> <div style="border: 1px solid black; background-color: #4F81BD; color: white; padding: 5px;"> <p>A minimum number of participants are required for this SLP and if this is not met, the course will be cancelled. Payment is required prior to attendance, cancellation fees applies</p> </div>

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Project Management for Manufacturing – OFFERED BY THE DEPARTMENT OF INDUSTRIAL ENGINEERING IN COLLABORATION WITH WELA AND merSETA

CONTENT	TARGET PARTICIPANTS	COURSE OBJECTIVES	DATE, DURATION AND COST
<p>INTRODUCTION</p> <ul style="list-style-type: none"> - Understand the nature of and need for project management - Understand the basic phases of the project management process: <p>INITIATE</p> <ul style="list-style-type: none"> - Develop a scope statement - Identify stakeholders - Understand the basics of scope management <p>PLAN</p> <ul style="list-style-type: none"> - Create a basic work breakdown structure - Add resource estimate to activities - Sequence activities - Draw a simple network diagram - Develop a Gantt chart - Identify risks <p>EXECUTE</p> <ul style="list-style-type: none"> - List the typical managerial functions associated with project execution - Monitor performance of both cost and progress - Manage risks <p>CLOSE</p> <ul style="list-style-type: none"> - Ensure project acceptance - List actions required to close the project formally 	<p>Project team members from any levels within the organisation</p>	<p>Enable participants to plan and manage a project from a proposal to handover and turnkey perspective</p>	<p>Format:</p> <ul style="list-style-type: none"> - Five 30 minute online sessions (notes will be provided) - Practical tasks - Recorded tutorials <p>Cost: R5500 per person</p> <p>Date: 1, 8, 15, 22, 29 July 2021</p> <p>Pre-requisites:</p> <ul style="list-style-type: none"> - Matric certificate - Preferably employment in an Operations/Production/Quality Environment <div style="border: 1px solid black; background-color: #f1c40f; padding: 5px; text-align: center; margin: 10px 0;"> <p>ONLINE COURSE CLASSES HELD VIA MICROSOFT TEAMS</p> </div> <div style="border: 1px solid black; background-color: #34495e; color: white; padding: 5px; text-align: center; margin: 10px 0;"> <p>A minimum number of participants are required for this SLP'S and if this is not met, the course will be cancelled. Payment is required prior to attendance, cancellation fees applies</p> </div> <div style="border: 1px solid black; background-color: #f1c40f; padding: 5px; text-align: center; margin: 10px 0;"> <p>For more information: Nicole Truter Nicole.truter@mandela.ac.za 041 504 3645</p> </div>

