



Course title	<b>FAILURE MODES, EFFECTS AND CRITICALITY ANALYSIS (FMECA)</b>	
Course overview	Your Key benefits or course objectives	
<p><b>Overview</b> This one day Failure Mode Effects Criticality Analysis (FMECA) training course introduces the topics of design and process FMECA to your team by teaching the theory using practical examples from your own business. Delegates are provided with basic fundamentals and are led through the techniques for producing a FMECA. FMECA is an important technique in the field of reliability assessment; it can provide valuable information to feed into both design as well maintenance strategies. It provides a comprehensive identification and evaluation of the unwanted failure modes of components or sub-systems within a system, and the effects these failures have on the system. Criticality analysis enables the seriousness of these failures to be assessed.</p> <p><b>Why FMECA</b> The need for asset integrity is a key driver for any industry. Improving maintenance and reliability ensures the optimum performance of assets against a backdrop of regulatory, safety and cost pressures. Maintenance needs to improve the integrity and availability of assets while minimising costs. FMECA is a methodology for predicting potential failures and the consequences of those failures. The output of the analysis is used to direct effort appropriately into preventing failures, with the overall aim of reducing the risk of failure to an acceptable level. Criticality analysis is a key technique for understanding which items of equipment, or systems, are most important to operations. Knowing which items are most critical allows engineers to prioritise maintenance effort into the most beneficial and necessary areas for the business. When applied effectively criticality analysis and FMECA both result in optimising equipment maintenance policies that save money and increase reliability.</p>	<ul style="list-style-type: none"> <li>▪ Introduction to Failure Mode Effects Analysis (FMEA),</li> <li>▪ Explanation of Functional Failure,</li> <li>▪ Recognition of Failure Modes,</li> <li>▪ Identify Failure Mode Effects,</li> <li>▪ Failure Mode Effects Analysis Methodology</li> <li>▪ Explanation of Equipment Criticality,</li> <li>▪ Functional Failure Criticality Rating,</li> <li>▪ System and Parts Functional Analysis,</li> <li>▪ Determine Risk Priority Number,</li> <li>▪ Selecting Maintenance Tasks for Failure Mode</li> <li>▪ Conduct FMECA for an Item of Equipment,</li> </ul> <p><b>Why FMECA</b> To optimise equipment maintenance policies that save money and increase reliability. To help engineers to prioritise maintenance effort into the most beneficial and necessary areas for the business.</p> <p>By Predicting potential failures and the consequences of those failures. Using the output of the analysis to direct effort appropriately into</p> <ul style="list-style-type: none"> <li>- preventing failures, and</li> <li>- reduce the risk of failure to an acceptable level.</li> </ul> <p>Using Criticality analysis technique to determine:</p> <ul style="list-style-type: none"> <li>- which items of equipment, or systems, are most important to operations.</li> <li>- which items are most critical</li> </ul>	
<b>1 to 2 days</b>		<i>Training in house or out of Canada may require more days</i>
<p><b>Target audience and industries</b></p>	<p><b>Who should attend?</b> Those needing methods for: Prioritising reliability improvement work. Identifying potential failures and appropriate preventive activities. This course is designed for delegates who are involved in the design or assessment of systems required to demonstrate a high level of reliability. It delivers basic knowledge of one of the key techniques for assessing system reliability.</p>	