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## Competency Unit: Exemplar Global – SSY – Six Sigma Yellow Belt

### How to use this document

The purpose of this Competency Unit is to give Training Providers detailed information on the performance criteria required for the development and delivery of the **Exemplar Global-Six Sigma Yellow Belt** examination.

A **Training Provider** is someone who has received the Exemplar Global Training Provider and Examiner Certification Scheme (TPECS) certification for the development and delivery of the **Exemplar Global-SSY examination**.

A Six Sigma Yellow Belt is a professional that understands the basics of the Six Sigma Methodology and supports improvement projects a part of a team.

To pass the Exemplar Global-SSY examination an individual must show evidence that they have adequate skills in the seven (7) areas of Competencies shown in the tables below. These individuals show competency by meeting the performance criteria shown in the second column. Training Providers are responsible for ensuring that these individuals provide adequate evidence of the performance criteria, according to the Evidence Guide.

Training Providers use an accompanying Examination Profile to document how evidence will be collected and are authorized to administer the TPECS Competency Unit examination through their TPECS certification.

All TPECS examinations will measure the performance criteria shown in this competency unit as written.

Competency	Performance Criteria	Evidence Guide
1. Describe the Value of Lean Six Sigma	<p>1.1 Describe why Six Sigma is an important tool for business:</p> <ul style="list-style-type: none"> <li>• Philosophy of six sigma</li> <li>• Origins of six sigma</li> </ul> <p>1.2: Explain Organizational drivers and metrics:</p> <ul style="list-style-type: none"> <li>• Identify key drivers for business</li> </ul> <p>1.3: Describe the importance of utilizing organizational goals:</p> <ul style="list-style-type: none"> <li>• Project selection</li> </ul>	<p>Demonstrate the impact that six sigma has on businesses operations.</p> <p>Demonstrate knowledge of the origins of Six Sigma, including:</p> <ul style="list-style-type: none"> <li>• Motorola</li> <li>• GE</li> <li>• Statistical Origin</li> </ul> <p>Identify KPIs that are important for an organization in order to measure its progress against strategic objectives:</p> <ul style="list-style-type: none"> <li>• Profit</li> <li>• Market share</li> <li>• Customer satisfaction</li> <li>• Efficiency</li> <li>• Product differentiation</li> </ul> <p>Demonstrate knowledge of the project selection process and when to apply DMAIC (Define, Measure, Analyze, Improve, Control) as opposed to other problem solving tools. Identify organizational goals as they relate to the project selection process.</p>
2. Identify LEAN principles	2.1 Identify Lean concepts and tools.	<p>Describe Lean concepts and how to apply common tools to reduce waste. These include:</p> <ul style="list-style-type: none"> <li>• Value chain</li> <li>• Flow</li> <li>• Pull</li> <li>• Perfection</li> <li>• Kaizen</li> <li>• 5S</li> <li>• Error-proofing</li> </ul>
	<p>2.2 Recognition of value-add vs. non-value-add activities:</p> <ul style="list-style-type: none"> <li>• Identify waste</li> </ul>	Be able to identify waste in terms of excess inventory, space, test inspection, rework, transportation, and storage.

Competency	Performance Criteria	Evidence Guide
3. Utilize DMAIC – Define	<p>3.5 Define team roles and responsibilities:</p> <ul style="list-style-type: none"> <li>• Belts</li> <li>• Champions</li> <li>• Executive</li> <li>• Coach</li> <li>• Facilitator</li> <li>• Sponsor</li> <li>• Process owner</li> </ul> <p>3.6: Define and apply team tools.</p>	<p>Define and describe process components and boundaries. Explain how processes cross various functional areas and the challenges that result for process improvement efforts.</p> <p>Identify process owners, internal and external customers, and other stakeholders in a project and describe how projects impact customers.</p> <p>Identify the problem and precisely describe what is wrong with what and how it impacts on internal and external customer.</p> <p>Identify at what point it would be considered that the problem has been solved. e.g., by writing a project objective.</p> <p>Demonstrate knowledge of the SMART (specific, measurable, attainable, relevant, and time-bound) acronym as it applies to objectives.</p> <p>Use graphical tools to display customer feedback.</p> <p>Describe and define the roles and responsibilities of participants in six sigma, including black belt, master black belt, green belt, champion, executive, coach, facilitator, team member, sponsor, and process owner.</p> <p>Define and apply team tools such as brainstorming, nominal group technique, and multi-voting.</p>
4. Utilize DMAIC – Measure	<p>4.1 Develop process modeling:</p> <ul style="list-style-type: none"> <li>• Maps</li> <li>• Flow charts</li> </ul> <p>4.2 Develop process input and output variables using Supplier-Input-Process-Output-Customer (SIPOC).</p> <p>4.3 Collect and summarize data using:</p> <ul style="list-style-type: none"> <li>• Data collection methods</li> <li>• Graphical methods</li> </ul>	<p>Develop and review process maps, written procedures, work instructions, flowcharts.</p> <p>Identify and develop process input variables and process output variables by using tools such as SIPOC.</p> <p>Define methods for collecting data such as data collection plans and check sheets. Define techniques such as random sampling, stratified sampling, and sample homogeneity.</p> <p>Demonstrate an understanding of graphical techniques:</p> <ul style="list-style-type: none"> <li>• Frequency distributions</li> <li>• Run charts</li> <li>• Pareto charts</li> </ul>

Competency	Performance Criteria	Evidence Guide
5. Utilize DMAIC – Analyze	5.1 Identify potential root causes.	Understand methods such as cause and effect, fishbone diagrams, 5 why and brainstorming to identify potential causes.
6. Utilize DMAIC – Improve	6.1 Identify and develop a list of potential solutions 6.2 Identify change management issues.	Understand how to use tools such as brainstorming, assumption busting, solution selection and decision making. Identify and define change management tools that could be used, including: <ul style="list-style-type: none"> <li>• Force field analysis</li> <li>• Stakeholder analysis</li> </ul>
7. Utilize DMAIC – Control	7.1 Identify the actions required to implement and sustain the improvement.	Describe tools and methods such as: <ul style="list-style-type: none"> <li>• Process mapping</li> <li>• Documentation</li> <li>• Communication</li> <li>• Monitoring</li> <li>• Charts (e.g., control and trend charts)</li> </ul>