






Level 5 Diploma in Logistics & Supply Chain (850) 145 Credits



Unit: Production Management	Guided Learning Hours: 220
Exam Paper No.: 5	Number of Credits: 22
Prerequisites: Basic knowledge of business procedures.	Corequisites: A Pass or better in Certificate in Business Studies or equivalence.
<p>Aim: The essence of a manufacturing business is to provide goods and services to customers that are reasonable price and of good quality. However, if production process is not optimised, the entire supply chain process fails. \Production is a process of transforming raw materials into a desired product by adding value.</p> <p>The purpose of this course is to explore issues faced by manufacturing system and the importance of quality and how cost effectiveness can be achieved through six sigma and DMAIC improvement life cycle.</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
Special Requirements: None	
<p>Intended Learning Outcomes:</p> <ol style="list-style-type: none"> Understand the problems faced by designers and operators within the manufacturing system operation. Understand the effect on system performance of variability due to randomness and the use of probability and statistical techniques. Understand the background and meaning of Six Sigma, the problem-solving strategy used in Six Sigma and equation. Understand the sequence of DMAIC, which stands for: Define, Measure, Analyse, Improve, and Control including the prioritisation and flow. 	<p>Assessment Criteria:</p> <ol style="list-style-type: none"> Use business case study on how processes evolve. Describe quality Describe production process Explore problems within a given business case study Discuss reasons for success Describe factory complexity and causes of uncertainty Describe product substitutes. Define probability. Define risk. Describe risk identification techniques. Use production example to describe probability and impact. Be able to calculate decision trees. Describe contingency plan Describe the six sigma origins and development. Explore the six sigma themes. Be able to demonstrate the DMAIC process improvement cycle. Describe the problem solving strategy used in six sigma. Explain voice of customer Describe define phase and the organisational key players. Describe the measure phase parameters. Explain the objective of analyse phase. Describe the improve phase evaluation process.

<p>5. Understand how six sigma is used and applied in a project in assessing quality parameters in calculating yield and process capability.</p>	<p>4.5 Describe key components and activities of control phase</p> <p>5.1 Be able to assess customer expectations in a given project.</p> <p>5.2 Demonstrate quality output parameters.</p> <p>5.3 Be able to identify cost reduction and reduce waste.</p> <p>5.4 Be able to formulate causal hypothesis.</p> <p>5.5 Demonstrate implementing a control plan.</p> <p>5.6 Describe impacts of defects in a process.</p> <p>5.7 Be able to calculate process yield.</p> <p>5.8 Describe importance of measuring defects levels</p>
<p>Methods of Evaluation: A 2½-hour essay written examination paper with 5 questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework Production Management with a weighting of 100%.</p>	

Recommended Learning Resources: Production Management

<p>Text Books</p>	<ul style="list-style-type: none"> • Production Management by Peter Dean. ISBN-13 : 978-1861264510 • Operations Management by Nigel Slack. ISBN-13 : 978-1292253961 • The Good Production Planner by Martin Hendel. ISBN-13 : 979-8820061301
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>None</p>