

NIRMA UNIVERSITY
Institute of Management
Master of Business Administration (Full Time) Programme/
Integrated Bachelor of Business Administration-Master of Business
Administration Programme/
Master of Business Administration (Family Business &
Entrepreneurship) Programme

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Course Code	MFT5SEOQ06 MBM5SEOQ06 MFB5SEOQ04
Course Title	Lean Six Sigma

Course Learning Outcomes (CLO):

At the end of the course, students will be able to:

1. Discuss the lean six sigma methodology and how it helps an organization achieve the quality, cost, and efficiency objectives
2. Apply the concept of continuous improvements towards organizational excellence
3. Formulate the operations goals to help build a positive quality culture in the organization.

Syllabus

Teaching Hours

<p>Unit I: Introduction</p> <ul style="list-style-type: none"> • Introduction to Lean Six Sigma • Fundamentals of Continuous Improvement • Value Added and Waste Elimination • Customer-Focused Quality 	08
<p>Unit II: Continuous Improvement</p> <ul style="list-style-type: none"> • DMAIC, DMADV Process • Small Lot Production, Effects on Lead Time, Cost, Quality, and Flexibility • Lean in Practice • Lean Six Sigma for a not for profit organization 	08
<p>Unit III: Set-Up Time Reduction, Total Productive Maintenance</p> <ul style="list-style-type: none"> • Small Lot Production • Setup-Time Reduction • Maintaining and Improving Equipment • Pull Production System 	07
<p>Unit IV: Cellular Manufacturing</p> <ul style="list-style-type: none"> • Workcell and Cellular Manufacturing • Standard Operations • Quality at the Source and Mistake-Proofing • Lean Production Planning, Control and Supply Chains 	07

Suggested Readings:

1. Arthur, J., Lean Six Sigma Demystified, Tata McGraw Hill
2. Aruleswaran, A., Lean Six Sigma: A Practioner's Tool Book, Productivity & Quality Publishing, Chennai
3. Anupindi, R., et. al., Managing Business Process Flows, Pearson

4. Jones, E.C., Quality Management for Organizations Using Lean Six Sigma Techniques (Kindle Edition), CRC Press
5. Foster, T. S. Jr, *Managing Quality – An Integrative Approach*, Prentice-Hall Publishing Co.
6. Sye, G.L., Lean Six Sigma Project Tollgates and Checklists (Process Mastery with Lean Six Sigma Book 5) [Kindle Edition]
7. Arthur, J., *Lean Six Sigma for Hospitals: Simple Steps to Fast, Affordable, and Flawless Healthcare*, McGraw-Hill
8. Pochampally, K.K., *Six Sigma Case Studies with Minitab®* [Kindle Edition], CRC Press
9. Krishnamoorthi K.S., and Krishnamoorthi V. R., *A First Course in Quality Engineering: Integrating Statistical and Management Methods of Quality*, CRC Press
10. George, M., *Lean Six Sigma for Service*, McGraw-Hill
11. John, N., *Lean Production for Competitive Advantage, A Comprehensive Guide to Lean Methodologies & Management Practices*, Routledge
12. Pande, P., Neuman, R., Cavanagh, R., *The Six Sigma Way: How GE, Motorola, and Other Top Companies are Honing Their Performance*, Tata McGraw Hill Education
13. Snee, R.D., Hoerl, R.W., *Six Sigma Beyond the Factory Floor: Deployment Strategies for Financial Services, Health Care, and the Rest of the Real Economy*, Prentice Hall
14. Shaffie, S., Shahbazi, S., *36-Hour Course: Lean Six Sigma*, The McGraw-Hill
15. Patel, S., *The Tactical Guide to Six Sigma Implementation*, CRC Press
16. Womack, J.P., *The Lean Turnaround: How Business Leaders Use Lean Principles to Create Value and Transform Their Company*, Art Byrne

w.e.f. Academic Year 2019-20 and onwards