

INSTITUTE	FACULTY OF MANAGEMENT STUDIES
PROGRAM	BACHELOR OF BUSINESS ADMINISTRATION (HONS.)
SEMESTER	6
COURSE TITLE	SIX SIGMA
COURSE CODE	04BH1601
COURSE CREDITS	3

Course Outcomes: After completion of this course, student will be able to:

- 1 Understand meaning and importance of quality and quality management
- 2 Understand six-sigma tools and its implementation
- 3 Know how six sigma belts works and benefits reaped out of it

Pre-requisite of course:NONE

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
36	0	0	50	50	0	0	0

Contents : Unit	Topics	Contact Hours
1	Introduction Meaning and introduction to lean thinking and six sigma concepts, Similarities and differences, History and Evolution of Lean and Six Sigma, Six Sigma approaches (DMAIC and DMADV), Phases of six sigma	6
2	Basic Concepts and Terminologies Six-sigma team formation (various belts & their role), Push-pull system, COPQ- Cost of Poor Quality, Voice of customer, Quality Function Deployment, CTQ- Critical to Quality factors, Chance and Assignable cause of quality problems, First Yield and First Pass Yield, Acceptant Sampling, Process capability analysis	7
3	Lean Six Sigma Green Belt Tools Introduction to Theory of constraints, Value stream mapping, Poka-Yoke, 5S, Total productive maintenance, FMEA & FMECA, KANBAN, KAIZEN, Statistical Quality/Process control (X-bar & R-chart, C-chart, P-chart, nP chart), Regression analysis, SMED-Single Minute Exchange of Dies	15
4	Six Sigma Methodology Define, Measure, Analyze, Improve, Control.	5

Contents : Unit	Topics	Contact Hours
5	Six Sigma projects and benefits Identifying Lean Six Sigma projects, Planning for implementation, Selection of tools and techniques for each phase, Measuring the benefits of Lean-Six sigma, Limitation of Six sigma	3
Total Hours		36

Textbook :

- 1 A guide to six sigma and process improvement, Howard S. Gitlow, Richard J. Melnyck, David M. Levine, Pearson Education, 2015

References:

- 1 A guide to six sigma and process improvement, A guide to six sigma and process improvement, Howard S. Gitlow, Richard J. Melnyck, David M. Levine, Pearson Education , 2015
- 2 Quality Management, Quality Management, Kanishka Bedi , Oxford University Press, 2006
- 3 Total Quality Management, Total Quality Management, P. N. Mukherjee, PHI, 2006
- 4 Production and Operations Management, Production and Operations Management, R. Panneerselvam , PHI, 2008
- 5 Total Quality Management, Total Quality Management, S. Rajaram, M. Sivakumar, Biztantra, 2013
- 6 Total Quality Management , Total Quality Management , Butterworth- D. R. Kiran, Butterworth- Heinemann, 2016

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking
10.00	20.00	25.00	25.00	20.00	10.00

Instructional Method:

- 1 THEORY