Black Belt Lean & Kaizen Body of Knowledge

1. **Identify Value**
	1. Lean Principles and concepts
	2. TPS
	3. Lean and Agile
	4. 8 Wastes
	5. Kaizen
	6. Continuous improvement and Kaizen blitz
	7. JIT
	8. World class manufacturing
	9. Muda, Mura , Muri
	10. Identify Losses
	11. Gemba Walks
	12. Target Costing
	13. Lean Champion role.
	14. Project Scope
	15. Process Yield Analysis
	16. Strategy Deployment and X Matrix
	17. QFD
	18. Lean metrics & PQCDSM- Boards
2. **Map the Value Stream**
	1. Value stream mapping
	2. Time and motion Study
	3. Value Stream Metrics
	4. Set SMART Targets
	5. future state & Ideal state mapping
	6. Walk and Map out process
	7. Work Balancing and work content.
	8. Monitor Process Cycle Efficiency
	9. One Piece Flow and Little Law
	10. Takt analysis
	11. Allowance systems
	12. BMV & SMV
	13. Dynamic workforce loading
3. **Create Flow**
	1. Train Team leaders
	2. Standardization & Standard work
	3. A3 Problem Solving
	4. Design Job Methods
	5. OEE &Six Big Losses
	6. TPM Pillars
	7. Autonomous maintenance
	8. Ergonomics
	9. Analysis and Problem solving for each NVA Activities
	10. Work Force Allocation
	11. Right first time
	12. Poka-Yoke
	13. Statistical Process Control and Control Charts
	14. Validate Measurement System
	15. 5 S
	16. Visual Management
	17. SMED
	18. Batch size reduction
	19. JIDOKA
	20. Accelerating Information Flow
	21. Accelerating Physical Flow
	22. Workplace Design and Layout
	23. Continuous Flow and Cell Design
	24. Process Simplification
	25. Accountability Process
	26. Multi skilled operators
4. **Establish Pull**
	1. Pull Systems
	2. Establish Pull
	3. Synchronization of the entire value stream
	4. Inventory Management Policy
	5. Leveled Volume
	6. Hybrid Systems
	7. Heijunka and load leveling
	8. Pull vs Push Systems
	9. Customer Demand Planning
	10. Kanban systems Design
	11. Kanban systems Implementation
	12. Kanban Team
	13. Kanban in Make to Stock Value Streams
	14. Kanban Types
	15. Rework Kanban
	16. Mapping Kanban Information and Physical Flow
	17. Develop Kanban Operation Diagram
	18. Kanban for Distribution and Logistics
	19. Optimizing Kanban system
	20. Kanban Metrics and Management Systems
	21. Push, Pull and Push- Pull systems
	22. Work Load Planning
	23. Standardized WIP, SWIP ratios.
5. **Seek Perfection**
	1. Lean enterprise vs. lean manufacturing
	2. Daily Management System
	3. Lean in Support function and hiring process
	4. Reassess and Realign
	5. Report-Out
	6. Ongoing KPI’s
	7. Validate ,Improve and stick it system
	8. Lean in Accounting and Cost control
	9. Leadership Modeling
	10. Stabilize Future State
	11. Develop Standards and Cycles
	12. Layered Check-Act Process
	13. Plan- Do-Check-Act
	14. Training Methods
	15. Lean Culture
	16. Individual Mentoring
	17. Lean In process Design & Product Design
	18. Performance Management systems
	19. Sustaining the whole system.