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.