

# Post Graduate Diploma in Industrial Engineering & Management

## **Instructor-Led Online Training**

### **Course Curriculum (Duration: 4 Months)**

### Program Overview:

IFS Academy's Post Graduate Diploma in Industrial Engineering & Management (PGD-IEM) is a comprehensive 4-month program designed to equip professionals with essential skills in industrial engineering, management principles, project management and lean six sigma methodologies.

This advanced course combines intensive, hands-on learning with industry-focused specializations to bridge the gap between theory and practice. The program is structured to meet the growing demand for professionals proficient in industrial engineering, ensuring participants gain competencies that are relevant and directly applicable to the workplace.

- o Orientation
- o Industrial Engineering: Past, Present, Future
- Ethics, Ergonomics & Safety
- Performance Management
- Fundamentals of Manufacturing & Lean Manufacturing
- Work Study: Method Study & Work Measurement
- Statistics for Engineers & Statistical Process Control (SPC)
- Operations Research without Coding
- Manufacturing Simulations with Siemens Tecnomatix
- New Product Design and Development (NPI/NPD)
- Design For Manufacture & Assembly (DFMA)
- Design Failure Modes and Effects Analysis (DFMEA)
- Advanced Product Quality Planning (APQP)
- Production Part Approval Process (PPAP)
- Product Design & Value Engineering with SolidWorks
- Quality Management
- Total Quality Management (TQM)
- o ISO 9001:2015 Quality Management System
- AS9100: Quality Management System Aerospace
- o ISO/TS 16949: Quality Management System Automotive
- Total Productive Maintenance (TPM)
- Reliability & Replacement Analysis
- Overall Equipment Effectiveness (OEE)
- ISO 14001:2015 Environmental Management System
- o ISO 45001: 2018 Occupational Health & Safety Management System
- o Supply Chain Management
- Supply Chain Risk Management
- IBP, S&OP, Demand Planning
- Production Planning & Control
- Sales and Operations Execution (S&OE)
- SAP for Beginners

- Fundamentals of Management
- Strategic Management
- o Leadership
- Organizational Behavior
- Marketing Management
- Engineering Economics
- Managerial Finance
- Managerial Accounting
- Project Management with Microsoft Project
- Final Exam Day + Recommended Reading & Capstone Project Selections are Due
- $\circ$   $\:$  Lean Six Sigma Methodology for Green Belts
- DMAIC Framework
- Define Phase (D)
- Measure Phase (M)
- Analyze Phase (A)
- o Improve Phase (I)
- Control Phase (C)
- o Other Lean Six Sigma Tools & Techniques for Your Reference
- Design for Six Sigma (DFSS)
- o Lean Six Sigma Green Belt Project Introduction
- "Doubt Clearing Sessions
- Attendance is not Mandantory"
- Recommended Reading, Capstone Project & Lean Six Sigma Green Belt Project Reports Due
- Presentation Day (Schedule 2 hrs with the Instructor)"

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