Electronics Assembly for Operators

Course Objective & Overview
After completing this course, candidates will be able to employ the correct procedures for constructing Printed Circuit Board Assemblies (PCAs) within an electronics manufacturing facility.

Details: The Electronics Assembly for Operators course introduces the key tools, materials, and processes for operators working in electronics assembly. This course is designed to encompass the entire assembly process, including a customizable selection of Modules to address the current needs and future goals of operators and organizations.

Access
IPC EDGE Learning Management System

Course Structure:
Contains nine mandatory modules and a final exam. A score of 80% is required to pass the final exam and earn the IPC credential. There are nine additional modules to allow expanded learning on specific topics.

Difference from IPC-A-610 & IPC J-STD-001
Electronics Assembly for Operators course is a Foundation Level course and prerequisite for IPC-A-610 for Operators and J-STD-001 for Operators and not an alternative for the IPC Endorsement/Certification programs: https://www.ipc.org/ipc-certifications

Credential
Qualified IPC Assembly Operator

Mode of Training
Virtual Instructor-led
Company Premise
Bengaluru Skill Center
Available through IPC India
There will be tests after each module.

Structure of self-directed and group learning:
- Each module structured into micro-learning lessons
- Pre- and Post-Module Assessments

In module knowledge checks & assessments:
- Engaging content (photos, illustrations, animations & videos)
- Links to external (additional) learning resources
- Interactive exercises through instructor
- Instructor guidance on activities

**Key Features**

**Day 1 (8 hours)**

**Mandatory Modules**
1. Introduction to the Electronics Industry
2. Introduction to Printed Circuit Assembly (PCA)
3. Overview of Assembly and Soldering Processes
4. Safety
5. ESD & Product Handling
6. Component Identification

**Day 2 (8 hours)**

**Mandatory Modules**
7. Drawings, Specifications & Measurements
8. Basic PCB/PCA Defects
9. IPC Standards
Final Exam: Modules 1-9 (90 minutes)

**Day 3 (8 hours)**

**Optional Modules**
- Important for EMS Companies:
  10. Introduction to Hand Soldering
  11. Surface Mount Technology
  12. Through-Hole Technology
  13. Hardware
  14. Conformal Coating
  15. Press Fit

**Day 4 (8 hours)**

**Optional Modules**
- Important for Cable & Wire Harness Companies:
  16. Wire and Cable Preparation
  17. Wires and Terminals Technology
  18. Cables and Harness Technology

**Duration:**
3 - 4 days (32 hours)

**Practical Hands On**
- Included with Module 10-12 & 13-15
- 5 candidates in each group
- Separate tool list to be provided, to be arranged by Member company
- This hands-on aspect is special initiative of IPC India
- Standard Global Certificate will have no mention of the practical session

**IT & Audio-Visual Requirement**
- Laptop with high speed internet connection
- Projector & screen connected with instructor's laptop
- Audio system
- Table for demonstration

**Minimum no of candidates:** 15 Per Batch
**Maximum no of candidates:** 25 Per Batch

**Facility requirement at company premise**
Training Room to be arranged for instructor by the company. Lab to be equipped with the required tools and equipment’s as stated by IPC India (along with consumables). Lunch & refreshments to be arranged by the Company.

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