



Electronics Assembly for Operators

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. Electronics Assembly for Operators course is a prerequisite for **IPC-A-610 for Operators** and **J-STD-001 for Operators**. These additional courses explore the application of IPC standards in more depth.



Access: IPC EDGE Learning Management System

Type of Course: Available in both instructor-led and self-paced formats

Approximate Length: 16-20 hours for Mandatory Modules; Additional 16-20 Hours for Optional Modules

Prerequisites: None

Credentials: Qualified IPC Assembly Operator

COURSE OBJECTIVE AND OVERVIEW

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

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

7: Drawings, Specifications & Measurements

8: Basic PCB/PCA Defects

9: IPC Standards

Final Exam: Modules 1-9

Optional Modules

- 10:** Introduction to Hand Soldering
- 11:** Surface Mount Technology
- 12:** Through-Hole Technology
- 13:** Wire and Cable Preparation
- 14:** Wires and Terminals Technology
- 15:** Cables and Harness Technology
- 16:** Hardware
- 17:** Conformal Coating
- 18:** Press Fit

For complete course descriptions and registration information, contact sales@ipc.org

IPC ELECTRONICS WORKFORCE TRAINING courses include video presentations, clear text, detailed illustrations, interactive activities and practice quizzes, all formulated to make complex topics easy-to-understand and master. The topics are carefully selected to align with the skills and competencies vital to advancing an electronics career at any level.



COURSE STRUCTURE

The Electronics Assembly Operator course contains nine mandatory modules and a final exam. A score of 75% is required to pass the final exam and earn the IPC credential. There are nine additional modules to allow expanded learning on specific topics.

Each learning module contains:

1. Learning Objectives

- Brief video introduces students to the content covered.

2. Pre-quiz

- Short, (3 to 5-questions) ungraded quiz designed to help students identify gaps in their knowledge.

3. Instructional Content

- “Bite-sized” segments of text, videos, graphics and activities that explain the key points of the Module content and provide opportunities to explore how to apply electronic assembly processes at work.

4. Post-quiz

- Five to ten-question quiz designed to help you confirm what you know, identify areas that still need work and quickly link back to the original content for review.

KEY FEATURES

- Each module structured into micro-learning lessons
- Structured for self-directed and group learning
- Pre- and Post-Module Assessments
- In module knowledge checks & assessments
- Engaging content (photos, illustrations, animations & videos)
- Interactive exercises
- Instructor guide
- Glossary
- Links to external (additional) learning resources