



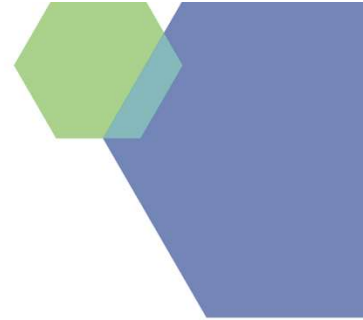
SEMI University

Naresh Naik
Director, SEMI University

CONNECT - COLLABORATE. - INNOVATE. - GROW. - PROSPER



SEMI University Overview



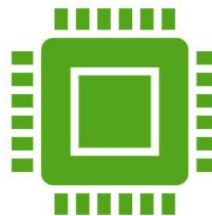
Helping to Address Workforce Challenges

- Companies, Employees, specifically Engineers, require more accommodating solutions:
 - **Online Course Access** in order to fully understand complex semiconductor and electronics industry topics
 - **Flexible** training options that provide 24/7/365
 - **Expediate** onboarding

SEMI University Overview



SEMI University (SEMI U) launched globally on February 7th, 2023.

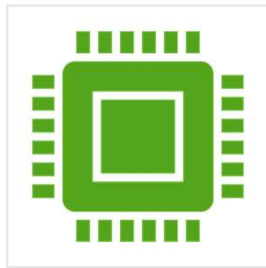


SEMI U is an online educational enrichment platform for and about the semiconductor and electronics industry.



Designed by industry experts, the platform responds to the learning and development needs of SEMI members and new industry entrants worldwide.

Features & Benefits



Features

525+ on-demand courses specifically for the semiconductor industry

Member discounts offered

Multiple languages supported



Benefits

Courses to learn about complex semiconductor and electronics topics

Semiconductor expertise for all skill levels

Keeping pace with current technology trends

SEMI University Course Topics

SEMI University offers courses across these categories:

- Introduction to Semiconductors
- Advanced Technologies
- AI & Data Techniques
- Safety – Human
- Safety – Facility and Workplace
- Principles of Design
- Front-end Processing
- Back-end Processing
- Test and Characterization
- Yield and Failure Analysis
- Optoelectronics
- MEMS

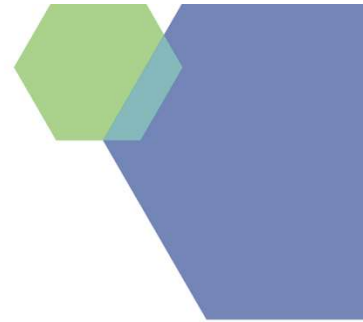
SEMI U Current Status

- 3,000+ user enrollments
- 1115+ companies using SEMI U
- Users from 55+ countries enrolled
- 75 courses in Japanese
- 90 courses in Chinese
- 23 courses in Korean





SEMI University 2024 Roadmap



Roadmap 2024



Introduction to the Silicon Chip & Semiconductors

- Introduction to the Silicon Chip
- Basic Electronics
- Semiconductor Manufacture
- Economics of IC Manufacture
- IC Market Overview
- The IT Revolution



This curriculum provides comprehensive insight into the electronics and IC industry including terminology, history, theory, technology, production process, economics and market applications.

Roadmap 2024

Semiconductor Technician Certifications



Total 56 Courses with 3 certifications

Beginner Level Certification

Semiconductor Process Overview

Semiconductors

- Vacuum Leak Checking
- Ion Implantation
- Thin Films
- Vacuum Leak Checking Gamification

Introduction to Electricity

- Production of Electricity
- Transmission and Distribution of Electricity
- Uses of Electricity
- Atomic Structure
- Electrical Circuits
- Electrical Current
- Voltage
- Electrical Power
- Resistance
- Ohm's
- Watts Law

Intermediate Level Certification

AC Electricity - Electromagnetic Devices

Solid State Electricity - Solid States Devices

Electrical Hand Tools - Hand Tools for Electrical Wiring

Electrical Measurement Conversion - Electrical

Measurement and Unit Conversion

Electrical Resistance Test Equipment

- Resistance Test Equipment
- The Fluke® Multimeter

Crimping Terminals and Splices

- Terminals and Splices
- Crimping
- Crimping a Terminal
- Crimping a Pre-insulated Splice

Assembly of Coaxial Connectors

- Coaxial Connectors
- Coaxial Tools
- Coaxial Connector Assembly

Advanced Level Certification

Countersinking Tools - Countersinking Tools Threads Taps and Dies

- Threads
- Taps
- Hand Tapping
- Threading Dies

Fasteners

- Torque Tools
- Bolts, Screws and Washers
- Threaded Inserts

Fastener Inspection Gauges - Countersink Gauges

Components of a Pneumatic System - Vacuum Technology

Introduction to Pneumatics - The Properties of Gases

Introduction to Hydraulics

- Hydraulic Theory
- Hydraulic Fluids
- Hydraulic Systems
- Hydraulic Actuators

Components of a Hydraulic System

- Classification of Hydraulic Valves
- Hydraulic Piping and Instrumentation
- Hydroelectric Symbology and Circuits

Each level duration 40+ hours + Certification Exam

Roadmap 2024



IC Packaging Curriculum – 3 Certifications

Q1 2024

Module 1 Beginner

Introduction to IC Packaging

- Functions of Microelectronics Packaging
- Review of Packaging Trend and Upcoming Challenges

Module 2 Beginner

Board Assembly and Soldering

- Through Hole Technology & Surface Mount Technologies
- Solder Materials, its intermetallic and reliability

Module 3 Beginner

PCB and Substrates

- PCB and its materials & Technology
- IC carriers and its development: Leadframe, Ceramics, Substrate, Flex

Module 4 Beginner

Leadframe and Substrate Packaging Assembly Process

Q2 2024

Module 5 Intermediate

Interconnects

- TAB Bonding and Wirebonding
- Flip Chip Bonding

Module 6 Intermediate

Package Assembly Process I - FEOL

- Backgrinding
- Dicing/Singulation
- Die Attach
- Plasma

Module 7 Intermediate

Package Assembly Process II - BEOL

- Encapsulation
- Plating
- Trim & Form
- Marking

Module 8 Intermediate

Build up Substrate Technologies

Q3 2024

Module 9 Advance

Material Characterization

- Tools for Bulk Material Characterization
- Tools for Interface Characterization

Module 10 Advance

Failure Analysis

- Failure Analysis Techniques

Module 11 Advance

Failure Mechanism

11/13/2023

Integrated Circuit Packaging

Roadmap 2024

Partnership with Arizona State University



Certification Courses

- Lean Six Sigma Yellow Belt Certification
- Lean Six Sigma Green Belt Certification

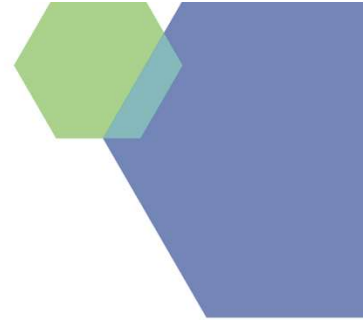
Other Courses:

- Semiconductor Characterization
- Semiconductor Packaging Specialization
 - Course 1 - Introduction to Semiconductor Packaging
 - Course 2 - Semiconductor Packaging Manufacturing
 - Course 3 - Advanced Semiconductor Packaging



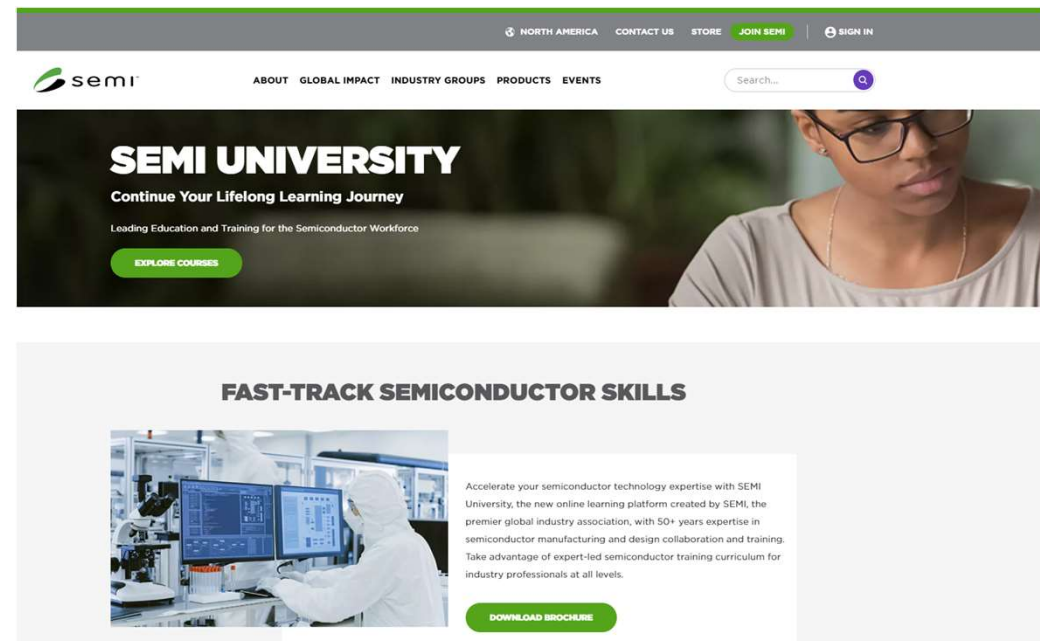


SEMI University Experience



SEMI University Website

- <https://www.semi.org/en/semi-university>
- Stay up-to-date on:
 - eLearning and SEMI University Information
 - Announcements
 - Resources for Learners and HR
 - Course Catalog





Please reach out to me anytime if you have any questions:

nnaik@semi.org

20% Discount Code: EUROPA20