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Semiconductor Packaging Manufacturing

This course is part of [Semiconductor Packaging Specialization](#)



Instructor: [Terry Alford](#)

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8 modules

Gain insight into a topic and learn the fundamentals.

4.7 ★

(67 reviews)

Beginner level

Recommended experience ⓘ

8 hours to complete

Flexible schedule

Learn at your own pace

What you'll learn

- ✓ Learn about the various stages of semiconductor package manufacturing.
- ✓ The role of Process Control Systems in semiconductor manufacturing.

✓ How Process control Systems can help identify and correct process problems.

✓ How to use control charts to monitor process performance.

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Process Control

Product Testing

Electronics Engineering

Manufacturing Operations

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Details to know



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Assessments

7 assignments



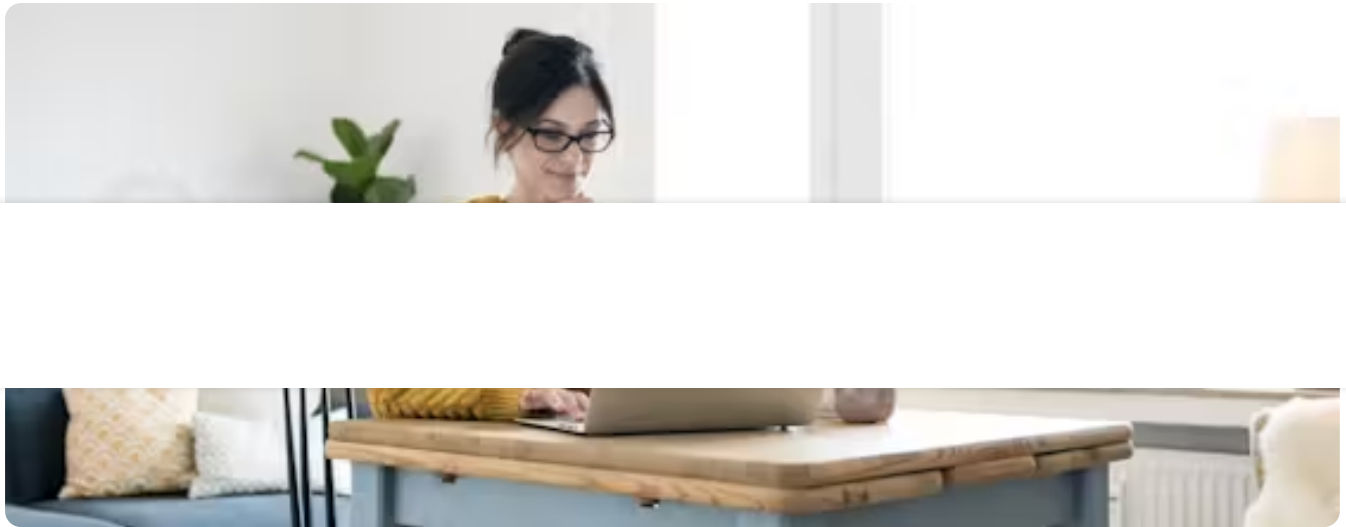
Taught in English

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Build your subject-matter expertise

This course is part of the [Semiconductor Packaging Specialization](#)

When you enroll in this course, you'll also be enrolled in this Specialization.

- Learn new concepts from industry experts
- Gain a foundational understanding of a subject or tool
- Develop job-relevant skills with hands-on projects
- Earn a shareable career certificate

There are 8 modules in this course

This course will provide information on the various stages of semiconductor package manufacturing, including sort, assembly, and final test. In addition, we will also describe how to select, build, and test the packages with the die and other components to ensure the quality of the

[Read more](#)

Welcome

Module 1 • 21 minutes to complete

[Module details](#) ^

Welcome to Semiconductor Packaging Manufacturing, where we discuss the various stages of semiconductor package manufacturing, including sort, assembly, and final test. In addition, we will also describe how to select, build, and test the packages with the die and other components to ensure the quality of the package and total assembly performance. We will also discuss the role of Process Control Systems in semiconductor manufacturing as they relate to quality testing. Specifically, we will explore how Process

Control Systems can help identify and correct process problems that cause variation and quality issues. Finally, we also demonstrate how to use control charts to monitor the process performance. These can assist in decision-making, specifically when to take action to improve the process.

Show info about module content

Introduction to Semiconductor Package Manu...

[Module details](#) ^

Module 2 • 58 minutes to complete

In this module you will watch a lecture video by Principal Engineer, Dr. Mitul Modi from Intel as he discusses semiconductor package manufacturing. He will explain how semiconductor packaging is a complex process and discuss the three primary phases: sort, assembly, and final test.

What's included

 1 video  2 readings  1 assignment

Show info about module content ▾

Introduction to Semiconductor Package Manu...

[Module details](#) ^

Module 3 • 1 hour to complete

In this module, Dr. Mitul Modi discusses process flows for different types of semiconductor packages. He will explain how most process flows consist of three basic steps: sort, assembly, and final test. You will learn the details of how these steps vary depending on the package type. Mitul will give examples of process flows for BGA, LGA, 3D stacked LGA, and Stacked Hybrid packages. He will also mention that there are many more possible scenarios for process flows in semiconductor packaging.

What's included

 1 video  2 readings  1 assignment

Show info about module content ▾




Assembly Part 1

[Module details](#) ^

Module 4 • 1 hour to complete

In this module, Dr. Mitul Modi discusses the assembly process of semiconductor

What's included

 1 video  2 readings  1 assignment

[Show info about module content](#) v




Assembly Part 2

[Module details](#) ^

Module 5 • 1 hour to complete

In this module, Dr. Mitul Modi discusses the different types of assembly steps in semiconductor packaging and their purposes. You will learn about the optional steps of IHS attach and ball attach, and how they improve the performance and reliability of the packages.

What's included

 1 video  2 readings  1 assignment

[Show info about module content](#) v

 1 video  1 assignment  1 plugin

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Terry Alford

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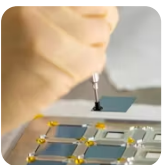


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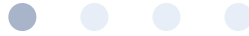
Introduction to Semiconductor Process 1

Course

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DR

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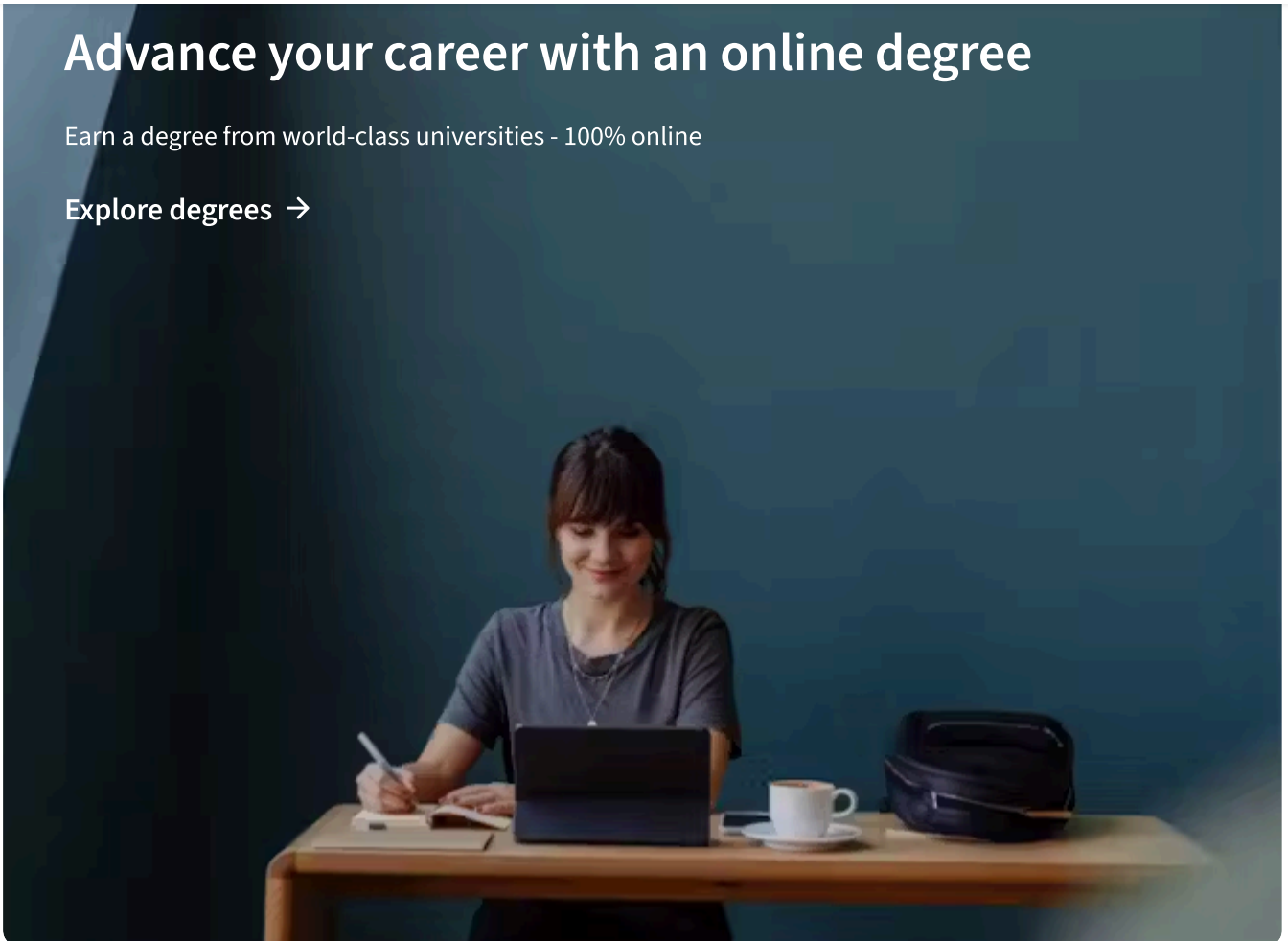
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