

Organizational Benefits

Increase organizational technical knowledge

Empower your workforce to be more self-sufficient

Shorten your employee learning curve

Increase yields and quality

Key Learnings

Learn what a plasma is, how it works, and why it's used

Understand foundational concepts from diverse scientific disciplines

Recognize the role and interactions of the vacuum, gas delivery, and power management systems

Discern the differences in the role of plasma for PVD, CVD, and etch

Improve your ability to recognize and articulate potential plasma issues

Target Audience

Machine operators and maintenance personnel

Equipment and process engineers

Managers and sales personnel

Description

Most plasma classes and texts are highly technical or not directly applicable to your thin film applications. They often assume that the student has all the background knowledge from physics, chemistry, electronics, and math to follow along. Finally, there is a plasma class for the rest of us. Advanced Energy has distilled the highly technical information to focus on the core knowledge needed to understand plasma and thin film processes.

This one-day class is densely packed with practical knowledge from our experienced applications engineers. It teaches the important concepts involved in plasma and thin film applications without using mathematics. This course is designed to be technical without overwhelming the novice. At the same time, experienced personnel will also benefit from the practical knowledge delivered by the instructors.

You will begin to see the process the way an applications engineer does, by getting the foundations of an expert mental model. We cover topics from a variety of backgrounds—including chemistry, electronics, and physics—all in the context of understanding the plasma and its applications. We then use practical reasoning, not mathematical formulas, to explain the plasma behavior.

This course is an excellent complement to Advanced Energy's RF Power Fundamentals and Mass Flow Control Fundamentals and Troubleshooting courses.

Modules

- *Overview*
- *Atomic behavior*
- *Plasma ignition*
- *Plasma characteristics*
- *Subsystem behaviors and relationships*
 - *Vacuum system*
 - *Gas delivery system*
 - *Power management system*
- *Plasma applications*
 - *PVD*
 - *CVD*
 - *Etch*

Materials and Language

Each attendee will receive a comprehensive course handbook, including presentation notes, along with a number of white papers and publications (hard copy and CD) covering thin film plasma applications.

The standard course and materials are delivered in English. For international customers, special arrangements can be made to provide a qualified translator.

Instructors

The course instructors are experts in plasma-based processes. On average, these instructors have over 20 years of thin thin film applications engineering experience.