

AESF Offers the Best Training Courses in the Industry

Education is one of AESF's principal means of meeting its objective of advancing the science of electroplating and surface finishing. The Society is your best resource for training and education in metal-finishing-related subjects. Here are just a few of the courses available now. New courses are continually under development.

Wow!

What satisfied course attendees are saying about AESF courses and instructors:

"Great anecdotal examples! There was just the right amount of information given, and breaks came in the right places. The instructor covered a lot of information without getting bogged down in unnecessary details."

"Very experienced, articulate instructor."

"Instructor is a subject-matter expert. Lots of practical experience."

"Great communicator. Powerpoint® presentations are very easy to follow."

"The instructor is very knowledgeable about the subject. He explained each subject very simply so that it was easy to understand."

"Excellent course. The instructor had obvious knowledge of the subject. Slides with lecture notes were helpful for future reference. Good use of drawings, photos, schematics and videos in the lectures."

"I registered for this workshop with the hopes of getting a review and learning about other processes for waste treatment. Both my hopes were filled. The instructor has the rare combination of hands-on experience, coupled with technical knowledge. Practical info! This was, by far, the best course I have ever attended on waste treatment."



AESF's courses are designed to meet the needs of virtually anyone involved in surface finishing—from managers to engineers, product designers to sales and technical representatives, specifiers and purchasers, to production-line workers.

Instructors are the top experts in their fields, with hands-on experience gained over many years of working in the field of surface finishing.

- All student materials are reproduced in full color. Each student receives a binder or multiple binders containing reproductions of all slides, and a full text with appendices, creating a reference source that will have high value for many years to come.
 - All courses are taught using computerized PowerPoint® shows that are projected from a high-resolution computer-projector. This allows incorporation of digitized videos and animations to help get complicated points across, and to 'bring the student into the shop!'
- AESF also has the ability to train your personnel in the confines of your own facility—on specific subjects that apply to your operations. We can digitize video, incorporate your own photos, slides, illustrations and sketches, or we will come into your facility and shoot the footage to appropriately illustrate a procedure for training use.

AESF has training plans to meet all your needs!

TECHNICAL APPLICATIONS— Introduction to Electroplating & Surface Finishing

This course serves as both an introduction to the industry and as a refresher course in chemistry and algebra. Other subjects covered are electricity, electrochemistry, types of parts plated & finishing cycles, plating equipment/processes, use of the Hull cell & other plating cells to test solutions, plating processes, and basics of corrosion.

- March 11–12, Holiday Inn Philadelphia International Airport, Essington, PA
- April 15–16, AESF Training Center (Radisson Hotel Alsip), Alsip, IL (Chicago area)

Training Course in Electroplating & Surface Finishing

A more advanced study of technologies, this course covers 22 subjects, such as: electricity, cleaning, electrochemistry, electroless plating, filtration & carbon treatment, corrosion, chromate conversion coatings, phosphating, pollution prevention, metallurgy, anodizing, alloy plating and rinsing, as well as nine commonly used plating processes (Ag, Au, Pd, Ni, Zn, Cu, Sn, Sn-Pb). AESF's optional certification exam that leads to the designation of Certified Electroplater-Finisher (CEF) is given at the conclusion of this course.

- March 15–18, Holiday Inn Philadelphia International Airport, Essington, PA
- April 19–22, AESF Training Center (Radisson Hotel Alsip) Alsip, IL (Chicago area)

*Exams for AESF's voluntary certification program are given on Friday immediately following the four-day courses.

Chromium Plating for Engineering Applications

This course is intended for training personnel who work in "hard chrome" plating shops. It's particularly useful to jobshops, aerospace and airline plating operations. A background in chemistry and metallurgy are provided so that the student can better understand the problems involved in plating chromium onto a variety of substrates. Detailed information is provided on analytical control of plating solutions, preparation, masking and polishing operations, and more.

- April 20–21, Osborn Convention Center (Jacksonville Hilton & Towers), Jacksonville, FL (Held in conjunction with the Aerospace/Airline Plating Forum & Exposition)

New! Light Metals Finishing Course

This course covers finishing processes for light metals, specifically aluminum, magnesium and titanium. It covers corrosion, metallurgy, mechanical finishing, equipment considerations, cleaning/preparation processes, etching/chemical milling, hard coating, chromic and sulfuric acid anodizing, and more.

- May 5–7, AESF Training Center (Radisson Hotel Alsip), Alsip, IL (Chicago area)

New! Electroless Deposition of Metals

This course is designed to train shop personnel and managers in the science of electroless deposition. Specific focus is given to electroless nickel and copper plating. Subjects covered include operating variables, troubleshooting, properties & applications, test methods & quality control, surface preparation, plating of plastic & non-conductors, electroless deposition of alloys & composites, post-treatment of deposits, and waste treatment.

- May 10–11, Holiday Inn Sea Tac, Seattle, WA

New! Zinc Plating

Everything you need to know about zinc and its alloys is covered in this course (cyanide-based, alkaline non-cyanide-based and acid-based zinc plating processes, quality and performance, etc.). Also included is a tour of a large jobshop for a real “hands-on” experience.

- May 17–19, Midway Motor Lodge, Elk Grove Village, IL (Chicago area)

SPECIFICALLY FOR ELECTRONICS— Training Course in Electroplating & Surface Finishing for Electronic Applications

This course zeroes in on surface finishing as it applies to the intricate business of creating printed wiring boards, connectors and semiconductors. Overall, 25 subjects are covered, including copper, tin, tin-lead and precious metals plating, continuous reel-to-reel, barrel, rack and pulse plating. You need a high-school-level algebra and chemistry background. Specific topics covered are electroless deposition (Cu & Ni), copper-clad laminates, Ni & Sn-Ni plating, semiconductor bonding, tape-automated bonding, and the dry film resist process. AESF's optional certification exam, leading to designation as an Electronics Specialist-Certified (ESC) or Certified Electroplater-Finisher—Specialist in Electronics (CEF-SE) is given at the conclusion of the course.

- March 15–18, DoubleTree Guest Suites, Boston, MA
- May 3–6, Kansas City Airport Hilton, Kansas City, MO

*Exams for AESF's voluntary certification program are given on Friday immediately following the four-day courses.

ENVIRONMENTAL— New! Innovative Pollution Prevention Practices*

This course incorporates pollution prevention information developed through a partnership between the office of the U.S. EPA and the AESF, as well as materials from AESF's former

“Innovative Recycling” course. It will help shop owners and managers learn new practices in pollution prevention so they may benefit: (1) By reducing chemical costs associated with finishing; (2) by reducing chemical costs associated with waste treatment; (3) by decreasing the regulatory burden through better environmental control; and (4) by helping provide good finishing services through innovative, cost-effective technologies.

Regulatory Compliance Workshop*

This course provides detailed compliance information on RCRA, the Clean Water Act, the Clean Air Act, Superfund, SARA, and other compliance issues. Learn from experts when and how to comply. Plus, learn how to make those tricky calculations for TRI reporting. The textbook used in this workshop is the *Guidance Manual to Environmental Compliance*, which was produced under an EPA grant through the efforts of the AESF, NAMF and the MFSA.

Wastewater Treatment & Control Workshop

This workshop provides wastewater treatment operators with much of the knowledge necessary to become licensed operators. It covers sampling/preservation of samples for compliance purposes; optimizing rinsing to minimize wastewater; treatment of wastes (cyanide-bearing, chromium-bearing, metals & oily wastes), advanced methods for conventional & chelated wastes; solid/liquid separation; troubleshooting; and recycle/recovery methods.

- March 25–26, Holiday Inn Sea Tac, Seattle, WA
- April 8–9, AESF Training Center (Radisson Hotel Alsip), Alsip, IL (Chicago area)

OSHA/SAFETY—Safety & Compliance Workshop

This workshop is sponsored by AESF's OSHA Committee. It covers in easy-to-understand terms OSHA training requirements, hazard assessment, personal protective equipment, hazard communication, bloodborne pathogens, permit-required confined space control, record-keeping, control of hazardous energy, process safety management of highly hazardous chemicals, first aid & medical surveillance, prevention of heat stress, and fall protection & safety standards.

- March 22–23, Holiday Inn Sea Tac, Seattle, WA

*Not scheduled for spring '99, but can be made available in your shop as a customized course

Hotel Information

Hotel accommodations are not included with course fee. Please make your own reservations directly with the hotel. **Special note:** Please be sure to make your hotel reservations at least a full 30 days before the course is scheduled to begin.

Holiday Inn Philadelphia Int'l. Airport

45 Industrial Highway
Essington, PA 19029
Phone 610/521-2400

Radisson Hotel Alsip

5000 W. 127th St.
Alsip, IL 60803
Phone 708/371-7300

DoubleTree Guest Suites

400 Soldier's Field Road
Boston, MA 02134
Phone 617/783-0090

Kansas City Airport Hilton

8801 NW 112th Street
Kansas City, MO 64153
Phone 816/891-8900

Holiday Inn Sea Tac

17338 International Blvd.
Seattle, WA 98188
Phone 206/248-1000

Jacksonville Hilton & Towers

1201 Riverplace Blvd.
Jacksonville, FL 32207
Phone 904/398-8800

Midway Motor Lodge

1600 Oakton St.
Elk Grove Village, IL 60007
Phone 847/981-0010



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