Entertainment Electrics: Advanced Topics



This course covers topics that are listed as being in the content outline for the ETCP Entertainment Electrician Certification Exam

Taught by ETCP Recognized Trainer Richard Cadena

This one-day course covers advanced topics related to larger and more complex power distribution systems commonly found in entertainment and live events, including theatre, motion picture and television production, concert/touring, and more. Some of the topics include understanding harmonics and their effects, harmonic mitigation techniques, K-factor, skin effect, proximity effect, complex impedance, distortion power factor, displacement power factor, and more. A good grasp of electrical power distribution is required, understanding of basic trigonometry recommended.

TOPICS TO BE COVERED

Entertainment Electrics: Advanced Topics

Current distortion • Harmonics • Triplens • Crest factor • Effects of harmonics • Voltage drop

- K-factor The skin effect The proximity effect
- Equipment over-heating Equipment de-rating
- Pi filters Voltage notching Complex

impedance ${\scriptstyle \bullet}$ The power triangle ${\scriptstyle \bullet}$ Displacement

power factor • Distortion power factor • True

power factor • Harmonic mitigating techniques •more

SCHEDULE

9:00 am to 5:00 pm

CERTIFICATION RENEWAL

This course counts toward 7 renewal credits for ETCP Certified Electricians and ETCP Certified Riggers.



Approved training for ETCP renewal credits

SPACE IS LIMITED SO REGISTER TODAY!

For more information, email <u>info@APTXL.com</u>, visit <u>www.APTXL.com</u> or call (512) 280-0384.

- Class includes workbook for each attendee
- Additional resources include online practice problems, flash cards, videos, and more
- Optional online video and quizzes also available for single users or groups

ABOUT THE PRESENTER

Richard Cadena is an ETCP Recognized Trainer, ETCP Certified Entertainment Electrician, and author of: Electricity for Entertainment Electricians & Technicians, Focus on Lighting Technology, Automated Lighting: The Art and Science of Moving Light and Lighting for Modern Houses of Worship. His unique style and irreverent sense of humor make his classes entertaining as well as highly informative and educational.

WHAT ATTENDEES HAVE TO SAY

"Tremendous educational experience."

"...excellent class for anyone who wishes to be current with best practices in the industry. I highly recommend it, whether you are considering ETCP Certification or not."

"Great class. A great overview of what I knew and a wonderful introduction to what I didn't know."

"The best professional training seminar I have ever attended." - Jared Moore, IATSE Local 476, Chicago