



ABA Engineering Academy

Welcome to the ABA Engineering Academy. The Academy was started in 2013 as a way to groom a new crop of broadcast engineers for the future. Not only that, but also to aid present engineers in keeping up with the continuing changes in technology for both radio and television.

Classes run Monday through Friday with the following outline.

On **Monday** we offer a review of how we got to where we are today. Subjects covered include basic electronics (how electricity is created, basic components, frequency and wavelength, tube, solid-state devices and much more). We feel that understanding the basics is essential for beginners and a refresher for seasoned engineers.

Tuesday is all about audio. Subjects include understanding sound (how the human ear works), analog audio (levels, phase issues, microphone operation, decibels, processors, etc.) A detail review of digital audio both analog to digital and digital to analog conversion, digital audio levels and an overview of digital audio workstations. We have a fully operational digital recording studio in the training center for understanding a DAW.

Wednesday is RF Day. During the Radio Class both AM and FM transmitters are covered along with understanding transmission lines. AM antennas (both non directional and directional) and FM antennas are covered in detail. HD radio will be demonstrated using our spectrum analyzer and a special SDR unit to view area radio stations.

For the Television Class we cover the history of television, walking through the different changes in creating video over the years. A review of the basic of NTSC, color television, digital television (ATSC 1.0) and now ATSC 3.0. Transmitters, transmission lines and antenna are covered. We have a stream analyzer set up to view area television stations.

Broadcast operations are covered in detail on **Thursday**. This include EAS operations, Federal Communication Commission (FCC), required documents and filings, good engineering practices, and a complete review of a station license and public file requirements. We also cover basic IT fundamentals for broadcast engineering.

The Academy in association with the Society of Broadcast Engineers offers the opportunity for student to take the Certified Broadcast Technologist exam which is given on **Friday**. You are not required to take the test to attend the class. If you are not taking the exam, then you do not have to attend on Friday. The SBE does have a charge for the exam.

Each student receives a printed study guide which is yours to keep and make notes in.

Classes are held at the ABA Training Center, 2180 Parkway Lake Drive, Hoover, AL. Times for the classes are 8:30 AM – 4:00 PM Monday – Thursday. SBE exams start at 8:30 AM on Friday.

There are a number of hotels in the vicinity of the Training Center, see the list on the registration page.

For more information contact the Academy Director at 334-303-2525 or lwilkins@al-ba.com