

Preparing Yourself to Teach a Ham Radio Class

Much has been written about how to organize and present a ham radio licensing class, from finding classroom space, to preparing materials. But not a lot has been offered in the way of helping new instructors prepare *themselves* to teach. Here, an experienced instructor guides you through what it takes.

Dino Papas, KLØS

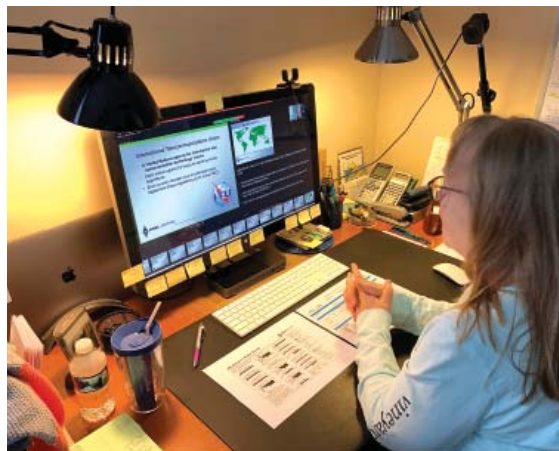
If you're thinking about serving your ham community as a licensing/upgrade course instructor, the best place to start is with a self-assessment. Ask yourself:

- Why do you want to teach?
- Do you have public speaking and/or teaching experience?
- Are you best suited to teach regulatory material, technical topics, or both?
- What is your comfort level with using multimedia materials (slide presentations and practical demonstrations)?
- Can you think on your feet when presented with difficult questions?
- If you attended a ham class as a student, think about what your experience was like. What worked and didn't work for the instructor? What worked and didn't work for you as a student? How would you have presented the material better?

If, after your self-evaluation, you still want to proceed, the next thing to do is pick the license class level you're most comfortable with, and read the current license manual completely — probably at least twice, making sure you understand the material. The ARRL license manuals do a good job of covering a lot of material directly related to the exam questions, but it's up to you as the instructor to understand the material beyond the book's explanations, in anticipation of your students' questions.

Understanding the Material

Plan on spending at least 3 hours preparing for each hour of material you'll present, especially prior to the first time you present a class.




Toby Papas, KLØSS, teaches a ham class using Zoom.

I find that highlighting, underlining, and adding lots of notes in the margins of my copies of the license manuals helps me prepare. It also helps to have other references available. *The ARRL Handbook* and *Antenna Book*, along with ARRL's *Understanding Basic Electronics* and other books from your reference library, provide tremendous adjuncts to your preparation. There are numerous internet resources that can be helpful as well.

Developing Your Presentations

The ARRL provides instructor slide sets at www.arrl.org/instruction-arrl-resources. You can use these as is, or as a starting point in developing your own materials. You can also get background information for your Technician-class presentations from ham radio YouTuber and QST "Ask Dave" columnist Dave



An Amateur Radio Station Consists of 3 Basic Elements

- **Transmitter (XMTR)**
 - Generates a signal carrying speech, Morse Code, or data
- **Receiver (RCVR)**
 - Recovers the signal from someone else's transmitter
- **Antenna**
 - Turns signals from transmitter into energy (radio waves)
 - Captures signals (radio waves) and turns them into signals for the receiver
 - A feed line (or transmission line) connects the antenna to the transmitter or receiver
- Most systems combine **transmitter & receiver** into a **Transceiver** (abbreviated XCVR)

A sample slide from ARRL's slide deck for hams teaching a Technician-level licensing class. Note the use of brief bullet points, rather than lengthy explanations. These slides are available at www.arrl.org/instruction-arrl-resources.

Casler's, KE0OG, "Dave Casler Technician Course" playlist on ARRL's YouTube channel at www.youtube.com/user/ARRLHQ/playlists.

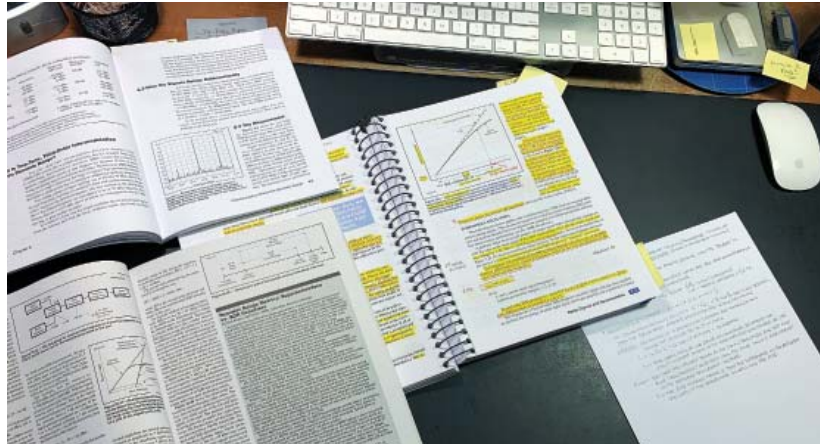
Presentation Tips

Once you've developed your class, it's time to consider how you'll actually present your material. Here are some presentation tips to keep in mind:

- Practice, practice, practice. Even the best instructors need to practice. It's the best way to overcome your own apprehension. You'll probably be nervous, and that's okay; it's how you handle your nerves that's important.
- If at all possible, arrange to practice your presentation in the space where you'll be teaching. Have a fellow instructor there to act as your audience and provide you with feedback. Doing so gives you the opportunity to become familiar with any audio-visual systems you'll use, along with the acoustics in the room.
- Don't try to memorize your presentation word for word. Instead, use bullet points on your slides as points of departure for your discussion.
- Speak at a measured pace and keep useless transitions such as "you know," "okay," "right?" and most especially "um" to a minimum. For my army students who overused them, I suggested that they keep their lips together during their transitions.
- Move around judiciously as you present. It's good for both you and the students.
- Compose your slides with bullet lists of words/phrases that are points of departure for your presentation. Long sentences aren't necessary or preferable.
- If you don't know the answer to a student's question, that's okay; be honest and tell the student that you don't know and that you'll get back to them with an answer. Always make sure you follow up!
- Maintain the students' attention by engaging them in the discussion; ask leading questions, as they can help you gauge student comprehension.

Arrange for Support

Having a "ham in the back" — another instructor who's always present during classes — can help both the primary instructor and the students, as sometimes offering an alternative explanation is useful. It's particularly important for first-time instructors, as it can be comforting for them to know there is a knowledgeable instructor backing them up.



In addition to the ARRL licensing manuals, pull resources from your ham library and the internet, and mark them up to aid your own understanding and point up examples and concepts that you want to bring out in class.

Our club is fortunate to have a dedicated Training Coordinator who handles the administrative details of our licensing classes. This includes recruiting and certifying instructors as being ready to teach by conducting "train the trainer" classes to ensure instructors are properly prepared.

Teaching ham radio classes is one of the most rewarding things I do as a ham. Seeing the light come on in a student's eyes makes all the work done in preparation worth the effort. I think you'll find it to be so for you as well!

Become an ARRL Registered License Instructor

ARRL Registered License Instructors have access to slide decks and other ARRL materials, and can list their licensing classes on ARRL's website. Visit www.arrl.org/license-instructor-qualifications to find out how to become a Registered License Instructor.

Dino Papas, KL0S, Colonel US Army, Retired, is a frequent contributor to *QST* and *On the Air* and has been a ham for more than 53 years. He holds a BSEE degree from the University of California at Davis and a Masters of Engineering Management degree from The George Washington University, though for 26 years he served on active duty as an infantryman with ham radio, shortwave listening, computers, and electronics as his top hobbies. He and his wife Toby, KL0SS, also a retired Army Lieutenant Colonel, are both past Presidents of the Williamsburg Area Amateur Radio Club, are both ARRL Life and Maxim Society Members, and reside in Williamsburg, Virginia. You can reach Dino at kl0s@arrl.net.

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