

Instructor Guidelines for Teaching Amateur Radio Classes for the Technician, General and Extra License Using AD7FO's Syllabuses ⑧

Pre-class Planning:

1. Determine whether your class will be taught in multi week (8-10) 2 to 2 1/2 hour segments or in 1-3 full day (7 hour) sessions.

The technician class can be taught in one six hour day (followed by a two hour exam session or our two hour evening sessions).

The general class will take a three hour Friday evening followed by a six hour Saturday or six 2-1/2 to 3 hour evening sessions. The last class would be the exam session.

The Extra class will take two seven hour days (including a 2 hour exam session on the second day or eight or ten 2-1/2 hour evening sessions with an exam session on the last evening).

2. Determine your maximum class size. 15 to 20 students would be optimum, (25 is my Maximum for technician and 10-15 maximum for the Extra class).
3. Determine how the class will be taught, one instructor for entire class or broken down to different instructors who have better knowledge in certain areas. All instructors need to review the syllabus and practice with the Power Point in advance for what they will be teaching.
4. Determine dates and a location and facility where you will teach the class. The requirements for the facility are:
 - Easily accessible location with adequate parking for students.
 - Handicapped access for those with special needs.
 - Seating for students, preferably with writing table or desks for student's to place their note taking pad and printed syllabus or their laptop on. Laptops would need enough Battery power for the entire class session.
 - A white board or black board for the instructor to use when explaining material.
 - A table for demonstrations with electrical power available nearby if demonstrations require power.
 - On site rest room facilities.
 - A place for students to eat their lunch on site for all day sessions (or access to nearby fast food restaurants)
5. Four weeks, or more, in advance advertise the class at local club meetings, on the air nets, public bulletin boards (for the Technician class), club web sites, post on ARRL web site, and ARRL SEC newsletter (if there is one one)

6. Have students register via email with their name, call sign (if it is a General or Extra class), email address, and a phone number where they can be reached in case of last minute class change or cancellation.
7. Confirm registration back to students via email (re send the class flyer with details and student class requirements).
8. Determine how students will obtain their personal copy of the syllabus. Some possibilities are:
 - Direct students to the AD7DO web page (ad7fo.com) and ask them to print a copy and bring it to class (a printed copy is recommended for each student).
 - Arrange with local copy service (Kinko's, copy centers, UPS store, etc.) to print copies on demand for students. I suggest heavier paper, double sided and spiral bound. Color and spiral bound printings is less than \$15 from my experience with my local UPS Store which was cheaper than other copy stores. (my local UPS store at 57th and Regal in Spokane WA. will print and mail copies anywhere)
 - Print a quantity of copies in advance and collect printing cost from students at the start of the first class.
8. Prepare a short Electronics introduction for the start of the classes. Use the one in the front of the Syllabus or generate your own.
9. Decide if you want to arrange a license exam at the last class session or direct students to other local test sites. If you plan a test session line up the VEC team, and be sure the students know they will need to have the \$15 testing fee at the test session in cash (or by check if that is okay with your VE team Leader) along with photo ID (Passport, Driver's license, School ID, credit card with photo, etc.) and a copy of their Amateur radio license that can be left with the Test team if testing for the General or Extra License. Students will need to provide their Social Security number for the FCC test form (or their FRN number if they already have an FCC license. The FRN number is required in place of a SSN if one has been issued).

Student requirements:

1. Register for the class
2. Obtain a copy of the Syllabus.
3. Bring a basic scientific calculator to class. If they do not already have one they are available from office supply stores, wall mart and others. A scientific calculator is available from the Dollar Store for \$1. Ask the students to become familiar with the

basic operation of the calculator prior to the first class. The calculator is optional for the Technician class but required for the General and Extra classes. Cell phone and programmable calculators are not allowed for the exam.

4. Bring a copy of their license that can be left with the test team if they are taking the General or Extra test. General and Extra students will need to use the FRN Number on their current license if they take the test instead of their Social Security number for the license application.
5. Bring pencil/pen and note paper for taking notes during class.
6. Be on time for the start of each class.

Instructor preparation

1. Decide order of instruction for the material in the syllabus.
 - For the technician class I go from the sub element 1 to sub element 0 in consecutive order.
 - For the general and Extra class I go out of sub element order to have better flow of training.
2. Decide on training aids and demonstrations to be used during class and where they will be inserted in your instruction. (Some recommendations are at the end of this document).
3. Have chalk or dry erase markers and an eraser. Cleaning spray for dry erase boards would be a good idea to have in your kit.

Suggestions for teaching a license class using the AD7FO syllabuses.

1. Explain how the class will be taught and what it takes to pass (how many questions can they miss and still pass the exam). Explain that the test is broken down into sub elements and groups and that a fixed number of questions will be asked from each sub element and no more. Explain that you will teach all elements and you will try to explain all questions when clarification is necessary or if they have questions,
2. Tell the students that if they have difficulty with a particular section they can decide to focus less on it and learn the topics they do understand. This will help them successfully pass the exam.

Also point out that if they take this approach and pass they should go back to the sections they had difficulty with and re-study them after passing the exam.

3. Teach directly from the syllabus going over each question statement adding thoughts or additional points or clarification as appropriate.
4. Use visual aids to enhance learning whenever possible to show real world items talked about in the question, (see list of what this author uses when teaching the class later in this document).
5. Invite questions from students during class if they do not understand something. Let them know that this okay and expected because if they have a question there is a good possibility that someone else in the class has the same question.
6. Ask questions to the class to check on their learning (do not direct at a specific student).
7. Talk about experiences with ham radio by yourself and others to hold class interest
8. Encourage students to take practice exams at one of the on line sites:

<http://aa9pw.com/radio/>

<http://www.eham.net/exams/>

<http://www.qrz.com/hamtest/>