



Meriden Amateur Radio Club, Inc

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W1NRG

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Motivating Amateur Radio Clubs to Open New Initiatives (MARCONI)

Program 9: FCC LICENSE CLASSES

Training Program Director: JAMES AB1DQ

Operational Guidelines

Statement of Program Purpose: MARCONI Program No. 9 - FCC License Classes - constitutes a two-part amateur radio license curriculum open to the community which first presents the student with an introduction to the world of amateur radio and also provides instruction regarding the knowledge required to successfully pass the FCC Element 2 Technician license exam. Second, we offer a follow-up course to prepare Technician license holders to sit for the FCC Element 3 General License exam to upgrade their FCC ticket.

Scope of the License Review Program: Prospective amateur radio operators enroll in a ten-week class held during the fall semester offered through, and promoted by, the Town of Wallingford, CT Adult Education (AE) program. The two-hour classes, held weekly, are conducted at the Wallingford Office of Emergency Management using the ARRL Technician License Guide as a textbook. Several volunteer members of the Meriden Amateur Radio Club (MARC) present the exam topics. Each week a different team of 2-3 MARC volunteers present the material from assigned textbook chapters. Volunteer instructors prepare their class material based on their own experience in the hobby and choose a teaching style they prefer. Formats include:

PowerPoint slides, supplemental videos, web-based or printed texts, or show-and-tell methods facilitated via radio equipment, component, circuit, and antenna demonstrations.

Volunteer Roles:

There are two volunteer roles – the **Program Director** and **Instructors**.

PROGRAM DIRECTOR: A member of MARC serves as a dedicated Director for the license class initiative.

The Director must be willing to put in the time and energy to run the course, which is nearly a year-round responsibility and requires attention to, and completion of, several annual tasks. These include, but are not limited to:

- The Director collaborates with the Wallingford AE coordinator to develop an abstract for publication in the town Adult Education catalog.
- The Director works with the Wallingford Town Administrator to reserve a suitable weeknight at the OEM (143 Hope Hill Road).
- The Director reviews and approves course texts and other class materials.
- The Director recruits volunteer instructors, schedules and chairs volunteer planning meetings (Zoom), and drafts the class syllabus.
- The Director maintains student and volunteer rosters and also maintains course statistics including number of students, number of students who sit for the exam, exam success rates, etc.
- The Director attends all classes, introducing the instructor team each week, moderating the classes and importantly, serves as a backup to the instructors.
- The Director sends a weekly follow up email after each class to all students and volunteers, recapping the lesson, attaching any slides or other class materials, assigning homework for the week (generally this means taking practice tests online for current week's material and previewing the next chapter). It also includes any general news, current ham radio on air events, and class opportunities. The weekly email, which is formatted as a newsletter, is essential for keeping students engaged in the class material, between sessions.

- The Director prepares printed practice exams for use in a final review session which is a mock-VE session, allowing the students to build confidence by taking a written exam in an exam session setting.
- The Director works with the MARC VE coordinator to schedule a dedicated special VE session for students-only, held at the end of the course.
- The Director solicits end-of-course feedback from students and volunteers by means of a club online survey and a paper survey provided by the Wallingford AE. The Director returns the completed surveys along with attendance records to Wallingford AE and uses the club online survey responses to evaluate what worked, what didn't work, and what changes we can make for the following year.

INSTRUCTORS:

- Instructors collaborate with other volunteers to create teaching teams of 2 or 3 and choose a topic that particularly interests them or involves an area in which they have extensive experience. This is an important consideration. Club members are often resistant to teaching unfamiliar material.
- Instructors prepare their class plan and are free to utilize any methods and tools with which they are comfortable. The only requirement is they must cover all of the exam questions in the chapter they are presenting. Instructors include at least one 10-minute comfort break during their class.

Typical Syllabus:

- Week 1: Introduction and Orientation: Students and volunteers introduce themselves, and entry-level ham radio videos are shown. Students then share why they want to get their license, volunteers share their favorite 'niches' within ham radio, and textbooks are distributed.
- Weeks 2 – 9: Individual classes. In the Fall, once weekly, 2-hour Technician classes are held in person at the OEM at 143 Hope Hill Road in Wallingford.
- Week 10: Mock VE Session. Students take paper exams in a simulated VE session setting. Throughout the course, students take practice exams online. Online practice exams often give feedback after each question, unlike the actual VE session. The Mock VE session will help the students get the 'feel' of sitting for an exam which will help build confidence.

VE SESSION: An optional (for the student) VE session is scheduled as a convenience by the Meriden Amateur Radio Club at the OEM after the course concludes. Having a dedicated VE exam for students is beneficial for the VE team given the increased number of test-takers present at that session, and is beneficial to the student as they are now comfortable among their peer students and instructors.

Follow Up.

Students who successfully earn their Technician license in the fall are invited to enroll in the follow up General License class to be held the following spring semester to upgrade their license. Unlike the fall Technician class, our springtime General class is held remotely by Zoom allowing current Technician licensees outside of the local community to study for their upgrade. The General class is advertised more broadly through the ARRL web site and local ham radio social media sites to cast a broader net for students. The General class attracts some licensed Technicians from outside the immediate area. Any licensed Technician may enroll in the General class, but we cap the number of students at 30.

CASE STUDY:

A.) Typical Class Session: Radio club members who are teaching, pair up and partner to cover the course material by chapter. Working together prior to the class the teaching team will decide which method they wish to use to present the material. They may wish to create a slide deck, choose videos to present, or prepare handouts for the students. Some instructors bring in amateur radio gear - radios, antennas, circuit boards, and components, for a show & tell experience. Some instructors will go through the book summarizing the text. Classes will cover all of the applicable FCC license questions for the section being presented. Classes are scheduled to run for 2 hours with a comfort break mid-way. At the end of class, students receive a follow-up summary email which will include PDF copies of slide decks. Their weekly homework assignment, is typically oriented towards taking practice exams online, focusing on the questions presented in class and encouraging the pre-reading of the chapter for the following week's class. The follow-up email often includes supplemental material such as links to relevant YouTube videos, invitations to participate in MARC On-Air club nets, and ham radio current

events and news.

The penultimate class is a mock VE session. Paper exams are available with paper answer sheets. Importantly, we maintain a VE session environment (quiet). Four different practice exams are available so students have plenty of opportunities to take a practice exam in the testing environment. We feel that mock VE sessions help the student feel at ease on exam day. We also realize that taking a paper exam is a different experience than taking practice exams online, where most sites provide immediate feedback for each question.

B.) Getting Started: Tech License Class

In April we begin by determining which night the OEM is available for classes in the fall. The Wallingford OEM is used for a variety of community events and we coordinate with the Town Administrator to reserve an appropriate weeknight. We work with the Wallingford Adult Education Office to submit our information to advertise the class in the Fall Adult Ed circular. Once the circular goes out and the fall offerings are published on the Wallingford AE website, we receive a list of registered students. Due to space constraints at the OEM, we cap student enrollment at 30.

During the summer months, we begin to organize the fall syllabus. Via email and a couple of Zoom meetings, volunteer instructors sign up for chapters and begin preparing class material. After receiving the student roster from Wallingford AE, the Director will begin sending orientation emails to students, and start cc-ing volunteers. He/she will also coordinate the purchase and distribution of textbooks.

C.) Getting Started: General License Class

In December the Director solicits volunteers for the upcoming Spring General Class and a weeknight is chosen for the class. The Director contacts the ARRL to list the class on the League's educational website and promotes the upcoming class on ham radio social media sites. We will also use email to advertise directly to newly licensed Technicians from the fall class. Further, we will send announcements to club members via the MARC e-mail reflector, Discord, and to the club newsletter, KeyKlix.

Interested students can enroll by emailing the Director. The Director prepares and keeps a student roster, which again, is capped at 30. In late December, the Director and Instructors meet on Zoom to

organize planning the spring syllabus. Via email and following a couple of Zoom meetings, volunteer instructors sign up for chapters and begin preparing class material. After the student roster is complete, the Director will begin sending orientation emails to students and cc-ing volunteers. He/she will also coordinate the purchase and distribution of textbooks.

D.) Getting Started: Amateur Extra License Class

An Amateur Extra License requires a higher degree of preparation and study. We believe such study scenarios would best be at least hybrid, with individual one-on-one elmer-type sessions being intermixed with classroom teaching. Such personalized instruction would integrate well with the teaching methods described above,

E.) Costs to the Student

Students are required to pay a \$25 textbook fee, paid in cash or check at the first class session. We use the ARRL license review books as our textbook and as ARRL-certified instructors, we are granted a 10% discount on the books that we pass on to the students. The textbooks are purchased in bulk to avoid shipping costs and the books are handed out at the first class when student payment is received. The Wallingford AE assesses a nominal fee to the students for the fall course to cover their administrative costs. As the spring course is not advertised through the AE, there are no other fees or costs for the General class. Students who wish to take their Technician or General Exam at the end of the class will need to pay the \$15 exam fee. After successfully passing the exam, newly licensed Technicians will also be required to pay a \$35 license fee to the FCC. Other administrative costs (within reason) associated with the class - paper, pens, name badges, coffee, and snacks, are covered by the Meriden Amateur Radio Club.

F.) Benefits

The MARCONI license class program provides various benefits to different communities. These include:

- Promoting amateur radio in the local community.
- Recruiting new amateur radio operators into the hobby and hopefully into their Club.

- Attracting new members to the Meriden Amateur Radio Club. This has become a significant recruitment tool for the club which has seen its membership grow significantly, doubling in size over the past 2-4 years. Social Media is very helpful in that advertising can reach thousands of on-line enthusiasts.
- Building collaboration and community, among members of MARC and the Town of Wallingford.
- Offering a distinctive and unique offering for the Wallingford Adult Education program that also increases Club visibility.

G.) Lessons Learned by the Numbers

This education program is still in its first year and we continue to learn by experience.

a. FALL 2023

Our first Technician Class attracted 22 students. Of the 22 students, 19 sat for the Technician exam. Of the 18 who tested, 17 earned their first ham radio license. 16 earned the Technician license and one student successfully passed both the Technician and the General class license. We had 13 club members volunteer as instructors for the Fall 2023 class.

b. SPRING 2024

Our first General Class attracted 11 students. Of the 11 students, 9 local students sat for the General exam. Of the 9 who tested, 8 earned their General Class license. In addition, the Fall 2023 student who earned his General license, took the Element 4 Extra exam at the Spring VE session and passed. We had 12 club members volunteer as instructors for the Spring 2024 class.

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MARCONI PROGRAM

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Affiliated with the ARRL since 1948