

THE **ARRL**

HAM RADIO LICENSE MANUAL



EVERYTHING YOU NEED TO GET YOUR FIRST HAM RADIO LICENSE!

- All questions and answer key, with detailed explanations, to help you pass your test and get on the air!
- For use with exams taken between July 1, 2022 and June 30, 2026.

FIFTH EDITION



Amateur Radio Technician Exam Preparation Course



ARRL
The National Association for
Amateur Radio®

Amateur Radio Technician Exam Prep Course

Module 1

Welcome to Amateur Radio

- 1.1 What is Amateur Radio
- 1.2 The FCC and Licensing
- 1.3 Amateur Radio Activities
- 1.4 Getting Your Ham Radio License

Introductions

- Instructors
 - Name
 - Callsign
 - Background
- Students
 - Name
 - About yourself
 - Why are you taking this course?
 - What do you know about ham radio?
 - Expectations for yourself & instructors

Instructors' Expectations

- Class will start and end on time
- Instructor will be prepared for each topic
- Students are expected to read assigned material before class and be ready to learn
- Ham radio is NOT a spectator sport
 - Active participation in class is vital to success in obtaining your Technician Class license



Course Overview

1. Welcome to Amateur Radio
2. Radio and Signals Fundamentals
3. Electricity, Components, and Circuits
4. Propagation, Antennas, and Feed Lines
5. Amateur Radio Equipment
6. Communicating With Other Hams
7. Licensing Regulations
8. Operating Regulations
9. Safety
10. Examination time (what you may not know)!

Let's Get Started

- Our goal during this class is for each of you to achieve the Technician class Amateur Radio license!
- The license will authorize you to operate an Amateur Radio (ham radio) transmitter.

What is Amateur Radio?

- **Amateur (or Ham) Radio is a personal radio service authorized by the Federal Communications Commission (FCC)**
 - To encourage the advancement of the art and science of radio
 - To promote the development of an emergency communication capability to assist communities when needed
 - To develop a pool of trained radio operators
 - To promote international goodwill by connecting private citizens in countries around the globe
- Through ham radio, you will become an ambassador for your community and your country

More About Amateur Radio ...

- The Amateur Radio Service is governed by Part 97 of the FCC Rules and Regulations *
- Anyone can be a ham radio operator, there is no age limit
- Amateur Radio operators cannot accept payment of any type for operating their radio, whether money or other goods or services **

* The exact reference is “Title 47 Code of Federal Regulations (CFR) Part 97” or **47 CFR Part 97**

** What if I want to get paid! You can ... get a **Commercial Radio Operator License** ...

<https://www.fcc.gov/commercial-radio-operator-license-program>



What Do Hams Do?

- Communicate
- Experiment
- Build
- Compete
- Serve their communities
- Engage in lifelong learning

What Makes Ham Radio Different?

- There are many unlicensed radio services available (FRS, GMRS, etc.)
- Amateur Radio is very flexible...
 - Fewer restrictions
 - More frequencies (channels or bands)
 - More power (to improve range and quality)
 - More ways to communicate
 - It's **FREE** to operate your radio!

With More Privileges Comes More Responsibility

- Ham Radios are much more capable and have the potential of interfering with other radio services
- Ham radios have unlimited reach, they easily reach around the globe and into space
- FCC authorization is required to ensure the operator is qualified to operate safely, legally and appropriately – this is why you are here

Steps To Obtaining Your License

- Study the material in the Ham Radio License manual (make sure you have the current edition)
- Review the question pool (back of the book)
- Take practice exams
 - www.arrl.org/examreview
 - www.qrz.com
- Practice a proctored 35 question multiple choice test
 - Questions pulled directly from the question pool
 - Need to answer 26 questions correctly (**miss 9**)

END OF MODULE 1

