



Amateur Radio Technician Class Licensing Course

Presented by The East Bay Amateur
Radio Club



ARRL *The national association for
AMATEUR RADIO*

Introductions

- State your name and a little about yourself.
- Why are you taking this course?
- What do you know about ham radio?
- What expectations do you have for yourself and your instructors?



My Expectations

Class will start and end on time.

Instructor will be prepared to teach.

Students will read assigned material before each class session.

Active participation during class discussions.



Course Outline

- Welcome to amateur radio
- Radio & electronics fundamentals
- Operating station equipment
- Communicating with other hams
- Licensing regulations
- Operating regulations
- Radio safety
- Test preparation and review

Our Goals

Obtain an Amateur Radio License by:

- Knowing the fundamentals.
- Passing the Exam.

Operate an Amateur Radio Station.

- Communicating with other stations.
- Legally and safely



Steps to Obtaining Your License

- Study the material in the *Ham Radio License Manual*.
- Review the questions in the back of the book
- Take interactive practice exams.
- Pass a proctored multiple choice test administered by volunteer examiners by answering 26 out of 35 questions correctly.
- Submit an application to the Federal Communications Commission.



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Help from ARRL on the web

- Ham Radio License Manual website:
 - www.arrl.org/ham-radio-license-manual
 - Downloadable question pools
 - Resources for each section and chapter
- Practice Exams:
 - www.arrl.org/examreview
 - Review questions for each section.
 - Take practice exams and track progress.



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So Let's Begin

Tonight we will talk about Amateur Radio and radio fundamentals. More detail will follow in the weeks to come.

Reading assignment:

- Introduction and Chapter 1 – this covers materials presented tonight.
- Chapter 2 – will be covered tonight.
- Chapter 3 – will be covered next week.



What is Amateur Radio?

Amateur 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 good will by connecting private citizens in countries around the globe.



Ham Radio vs. Unlicensed

There are some unlicensed radio services available: CB, FRS, GMRS, Cellular, VOIP.

Ham radio is a licensed service and has:

- Fewer restrictions. Buy, build or modify radios.
- More frequencies (channels or bands).
- Higher power allowed (improves range).
- More signal modes.
- More reliability in emergency conditions.



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Definitions From FCC Rules, Part 97

“Amateur Radio Operators” are **Persons** who:

- Are interested in radio technique
- Solely with a personal aim, and
- Without **pecuniary interest**.

“Persons”

- **residents** of the United States and Territories
- except representatives of foreign governments.

“Pecuniary interest”

- Operations for payment generally not permitted
- Business use not permitted →



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Definitions From FCC Rules, Part 97

“Amateur Radio Station” – A **station**:

- In an **Amateur Radio Service**
- Consisting of apparatus necessary for **radio communications**.

“Station”

- Transmitting and Receiving equipment
- At a location registered with FCC.

“Radio Communications”

- Between Amateur Radio Stations
- On radio frequencies authorized by FCC



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Ham Radio – More Responsibility

Ham radio signals can reach around the globe and into space and have the potential of interfering with other radio services.

Your FCC License shows that you:

- Are qualified to operate a station safely.
- Are familiar with FCC rules and regulations.
- Are familiar with radio technology and terminology.



What Do Hams Do?

- Communicate
- Participate
- Experiment
- Build
- Compete
- Serve their communities
- Life-long learning



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