EARS Technician License Course

Spring 2027

Course Syllabus and Class Agenda

Edmond Amateur Radio Society Rev A November 18 2026

Schedule	13 instructional classes plus a separate Class 14 review
Course dates	February 3 through May 5, 2027
Meeting time	Wednesday evenings beginning at 6:30 PM
Target finish	8:30 PM; each meeting will end before 9:00 PM
Format	Interactive online class (Zoom-like video conferencing); no scheduled break
Textbook	The ARRL Ham Radio License Manual, sixth edition
Exam pool	2026-2030 NCVEC Technician question pool, effective July 1, 2026

Course Overview

This course follows the sixth edition of The ARRL Ham Radio License Manual and prepares students for the FCC Technician Class amateur radio examination. The sequence follows the book chapters while allowing more time for electrical principles, equipment, operating practices, regulations, and safety.

How the Class Works

- Each class combines instruction, diagrams, examples, and official question-pool practice.
- Class chart counts vary by subject. Most classes have about 70 or fewer charts, but some exceed 70 to retain instructional material and practice questions. The target finish remains 8:30 PM.
- There is no scheduled break. Students may step away briefly when needed.
- Class 14 is a separate review session focused on frequently missed and higher-risk questions.

Learning Goals

- Understand the basic electrical, radio-wave, antenna, and equipment concepts required at the Technician level.
- Recognize safe station, power, antenna, and RF-exposure practices.
- Apply FCC licensing and operating rules to common amateur-radio situations.
- Use the official question pool to identify topics that need additional review before the exam.

Class Agenda

Read the listed chapter or chapter section before class when practical. The agenda may be adjusted slightly to allow time for questions or to finish a major subject at a natural stopping point.

Class	Day and Date	Reading and Charts	Topics	Instructors
1	Wednesday Feb. 3, 2027	Chapters 1 and 2 75 charts	Welcome to amateur radio; the FCC and licensing; amateur-radio activities; radio signals and waves; spectrum, wavelength, and basic station equipment.	Team Instructors
2	Wednesday Feb. 10, 2027	Chapter 3 Part 1 54 charts	Electrical fundamentals; current flow; series and parallel circuits; multimeter use; voltage, current, resistance, and Ohm's Law.	Team Instructors
3	Wednesday Feb. 17, 2027	Chapter 3 Part 2 47 charts	Electrical power; resistors, capacitors, inductors, and transformers; reactance, impedance, resonance, and tuned circuits.	Team Instructors
4	Wednesday Feb. 24, 2027	Chapter 3 Part 3 68 charts	Diodes, transistors, and integrated circuits; protective components; switches and relays; schematic symbols; basic radio circuits.	Team Instructors
5	Wednesday Mar. 3, 2027	Chapter 4 Part 1 58 charts	Line-of-sight, ground-wave, tropospheric, and ionospheric propagation; radio waves and polarization; radiation patterns; antenna gain and decibel relationships.	Team Instructors
6	Wednesday Mar. 10, 2027	Chapter 4 Part 2 73 charts	Feed lines and characteristic impedance; SWR and troubleshooting; dipoles, verticals, and directional antennas; connectors, tuners, and antenna test equipment.	Team Instructors
7	Wednesday Mar. 17, 2027	Chapter 5 Part 1 70 charts	CW, AM, SSB, FM, phase modulation, and bandwidth; transmitter and receiver functions; controls, filtering, amplifiers, and transverters.	Team Instructors
8	Wednesday Mar. 24, 2027	Chapter 5 Part 2 44 charts	Packet radio, APRS, FT8, gateways, linking, and computer interfaces; power supplies, mobile wiring, batteries, capacity, and battery safety.	Team Instructors
9	Wednesday Mar. 31, 2027	Chapter 6 Part 1 71 charts	Band plans; choosing frequencies; making contacts; simplex operation; repeater offsets, access tones, digital repeaters, and linked systems.	Team Instructors
10	Wednesday Apr. 7, 2027	Chapter 6 Part 2 46 charts	Nets and traffic handling; public-service and emergency communications; satellite operating; related on-air activities.	Team Instructors
11	Wednesday Apr. 14, 2027	Chapter 7 54 charts	Licensing terms and license classes; examinations and renewals; frequency privileges and power limits; international operation, call signs, and FCC requirements.	Team Instructors
12	Wednesday Apr. 21, 2027	Chapter 8 53 charts	Control operators and station identification; guest operating and test transmissions; interference, third-party communications, remote operation, prohibited transmissions, and on-air responsibilities.	Team Instructors
13	Wednesday Apr. 28, 2027	Chapter 9 70 charts	Electrical safety; grounding and lightning protection; battery hazards; tower and antenna safety; RF exposure and evaluation.	Team Instructors

Class	Day and Date	Reading and Charts	Topics	Instructors
14	Wednesday May 5, 2027	Review 63 charts	Frequently missed and higher-risk questions; explanations and memory aids; final five-question check and exam preparation.	Team Instructors

Course Materials and Preparation

- Bring or have access to The ARRL Ham Radio License Manual, sixth edition.
- Review the assigned chapter section before class when possible.
- Use the current 2026-2030 Technician question pool for practice; older Technician pools are no longer valid for current examinations.
- Keep a list of questions or topics that need clarification and bring them to class or the review session.

Instructor Team

Harvey Jones	Randy Wing	Ross Terry	Marcus Sutliff
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Question Pool and Review

The current Technician pool contains 409 questions. Course practice questions use the official 2026-2030 NCVEC wording and answer choices, including the February 19, 2026 corrections. Students should continue practicing until they can explain why the correct answer is correct, rather than relying only on memorization.