ARRL Student Coding Competition

Rules and App Specifications
Published January 1, 2026

Project Objective

Create, for ARRL, an Amateur Radio FCC exam preparation practice application. The iOS app should enable users to study, review, and take practice exams for the US Amateur Radio license exams.

- Competition begins January 1, 2026, and ends March 31, 2026. While not required, we recommend completing the Pre-Registration at **coding.arrl.org** to receive any updates and reminders we share about the competition.

- All rules and app specifications (this document) will be published on January 1, 2026.

- All projects must be submitted between February 1 and March 31, 2026. **An online project submission form will be made available beginning February 1, 2026.**

Requirements to Participate

Individuals or teams of up to three (3) qualifying individuals may participate. If the submitted project is from a team, the prize will be split evenly among team members.

All of the following requirements apply when you submit your project (applies to all participants):

- You must be an ARRL Member.
- You must be aged 21 or younger.
- You must hold an unexpired US Amateur Radio license.

Don't forget that ARRL Membership is FREE for full-time students aged 21 years or younger. Join at **www.arrl.org/student**. If you have any difficulty joining, please call 888-277-5289 during ARRL business hours. Don't wait until the deadline!

Minimum Standards for App

❑ Design an iOS app.

❑ Require each user to create an account to use the app. Include the following *required fields*: email, password. Include the following *optional fields*: Call sign, First Name, Last Name, Street Address 1, Street Address 2, City, State/Province, ZIP/Postal Code, Country.

❑ App must support all three license classes: Technician, General, and Extra class.

❑ Uses official Question Pools including diagrams: **ncvec.org/index.php/amateur-question-pools**.

❑ Include at least two modes of operation:

- **Review Mode.** Users can review questions from the official Question Pool chapter-by-chapter, by subelement, or randomly. For chapter-by-chapter review for Technician, General or Extra class practice, include functionality that will map each question to the chapter/section/page of the corresponding ARRL study guide (ARRL License Manual, Gordon West License Prep books, and ARRL Q&A books).
- **Practice Exam Mode.** Users can choose to take an on-screen exam or generate a practice exam for printing (PDF export or email/export is allowed). The questions for each practice exam are drawn randomly from the Question Pool (only one question from each subelement); questions and answers are scrambled; and the correct number and type of questions are drawn to constitute a valid practice exam.

❑ Option to study only correct answers (suppress multiple choice incorrect answers).

❑ Option to review only missed questions.

❑ Ability to increase occurrence of question presentation based on performance.

❑ Display a scorecard or summary screen with user's progress and results.

❑ Administrative features (data and info accessed by app publisher using a web app, for instance):

- Track user performance per element/sub-element.
- Access user account data.

❑ Must be modular to allow for ease of updating Question Pools, etc.

❑ Must be a FREE app.

❑ Include intro screen with links to helpful resources including ARRL e-store links for ordering study guides, finding exam sessions and obtaining an FRN, finding a radio club, and joining ARRL.

❑ Include on-screen and written instructions for using the app.

Bonus Features

❑ Include direct explanations for each question.

❑ Cross platform functionality (like creating a version for Android devices).

Judging Criteria

- Does the project meet the **Rules and App Specifications** and <u>Minimum Standards for App</u> included in this document?

- UI Usability – ease of use, discoverability.

- Attractiveness of the UI.

- Stability, code quality.

- <u>Bonus Features</u> (like an Android version!).

- **A virtual video interview will be held with all finalists.**

Not Allowed

It is NOT ALLOWED to copy another app.

It is NOT ALLOWED to create an app that just presents some other website.

It is NOT ALLOWED to use proprietary or licensed technology, other than device's OS APIs.

It is NOT ALLOWED to use code or languages that would be unacceptable to app stores.

It is NOT ALLOWED to use code designed to disrupt normal device operation.

Must contain original work. Any third-party libraries or code used must permit commercial use and redistribution.

The app must adhere to agreements for Apple Developers and any other applicable OS.

Project Submission

An online project submission form will be made available beginning February 1, 2026.

App source code checked into GitHub, and instructions for building and running the developed app. Must be buildable with standard tools.

Provide a description of (a) your development process, and (b) app features with (c) screenshots. Include why it's a winner!

Include a biography of the individual participant and all team members (if applicable).

Attribution, Ownership and Rights: Students may reference their project in portfolios, résumés, and non-commercial materials, and ARRL may give attribution where possible. By submitting an entry to the ARRL Student Coding Competition, each participant irrevocably assigns and transfers to The American Radio Relay League, Inc. (ARRL) all right, title, and interest in and to the submitted application, including but not limited to source code, compiled binaries, documentation, designs, and related materials. ARRL shall have the unrestricted right to use, reproduce, modify, distribute, publish, and create derivative works from the submission for any purpose, without further approval or compensation. Participants represent and warrant that they have the legal right to assign these rights and that the submission does not infringe on any third-party rights.