

Training Classes Beyond Your License

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After the License

- Our Amateur Radio License is our entry ticket into the world of Amateur Radio
- The license itself does not prepare us to be able to use all aspects of amateur radio, but it gives a clue as to what is available, and background on safe operating techniques, FCC rules, etc.

Emergency Operations

- *FCC 97.1(a): Recognition and enhancement of the value of the amateur service to the public as a voluntary, non commercial communication service, **particularly with respect to providing emergency communications.***
- Being able to provide this service will take planning, training, and practice.
- Where to begin?

One Approach: ARRL Training



The screenshot shows a Microsoft Internet Explorer browser window displaying the ARRL website. The address bar shows <http://www.arrl.org/cce/>. The page features a navigation menu with links for Operating Activities, Licensing, News/Bulletins, Services, Education, Public Service, Support, Donate to ARRL, and ARRL Info. The main content area is titled "ARRL Certification and Continuing Education (C-CE)" and contains three paragraphs of text. A sidebar on the right lists "CCE Links Available Courses" with sub-sections for Emergency Communication, Licensing, and Technical courses, each with a list of course links.

ARRL Certification and Continuing Education (C-CE)

If you want to take a course to learn about computers, crafts, gourmet cooking, baking, gardening, small engine repair, or any other hobby, you usually only have to look as far as the nearest school or community college. Such courses are offered in a variety of settings -- evening school, day school, or on-line.

But where does a ham go to learn more about his or her hobby? Many clubs offer licensing classes, but courses in other areas of ham radio are virtually unheard of. Once in a while seminars or conferences are held for topics of special interest, but structured courses with certification in various topics beyond licensing generally are not offered.

The ARRL Certification and Continuing Education Program, approved by the ARRL Board in January 2000, is designed to fill that gap. During the first half of 2000, extensive discussions took place through the Members-only On-line [Forum](#). As discussions progressed, participants overwhelmingly supported emergency communications as the first course topic.

CCE Links Available Courses

- [Class Registration Calendar](#)
- [Sample Course](#)

Emergency Communication

- [Level 1 AREC \(EC-001\)](#)
- [Level 2 AREC \(EC-002\)](#)
- [Level 3 AREC \(EC-003\)](#)
- [FEMA independent study program](#)

Licensing

- [Ham Radio License Course \(EC-010\)](#)

Technical courses

- [Antenna Modeling \(EC-004\)](#)
- [HF Digital Comm \(EC-005\)](#)
- [RFI \(EC-006\)](#)
- [Beyond Repeaters \(EC-008\)](#)
- [Antenna Design & Construction \(EC-009\)](#)
- [Radio Frequency Propagation \(EC-011\)](#)

Classes Available

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- [Analog Electronics \(EC-012\)](#)
- [Digital Electronics \(EC-013\)](#)

Emergency Preparation Courses.

Beginning Licensing Course

General Technical Courses

Emergency Preparations Course

- Introduction to Amateur Radio Emergency Communications. A basic course to raise awareness and provide additional knowledge and tools for any emergency communications volunteer. This course has 23 lesson units, is expected to take approximately 25 hours to complete over an 8-week period.
- Classes include activities and practices with message origination, researching Part 97 for the rules specific to Emergency Communications, etc.
- Part of the class involves creating an emergency plan for yourself and family, and creating a Go kit
- Online final assessment completes the class

Syllabus

- Introduction to Emergency Communication
- Amateurs as Professionals - The Served Agency Relationship
- Network Theory and the Design of Emergency Communication Systems
- Emergency Communication Organizations and Systems
- Served Agency Communication Systems
- Basic Communication Skills
- Introduction to Emergency Nets
- Basic Message Handling - Part 1
- Basic Message Handling - Part 2
- Net Operating Guidelines
- The Incident Command System
- Preparing for Deployment
- Equipment Choices for Emergency Communication
- Emergency Activation
- Setup, Initial Operations, and Shutdown
- Operations & Logistics
- Personal Safety, Survival, and Health Considerations
- Alternative Communication Methods
- What to Expect in Large-Scale Disasters
- Hazardous Materials Awareness
- Marine Communications
- Other Learning Opportunities
- Modes, Methods, and Applications

How Prepared?

- My Prep: Aug 2004 Blackout
 - Had no emergency power generation
 - Had limited emergency water supplies (had Reverse Osmosis tank water)
 - Had BBQ Grill for cooking (electric stove)
 - Had no emergency gasoline supply
- Today's preparation
 - Limited (inverter) electrical from auto
 - Have several gallons of water in addition to Reverse Osmosis tank and 1/2 gal in refrigerator
 - Have 2 propane tanks for BBQ and propane stove
 - Have up to 5 gal of stabilized gasoline plus 10 gal of kerosene

Technical Education

- Antenna Modeling (EC-004)
- HF Digital Comm (EC-005)
- RFI (EC-006)
- Beyond Repeaters (EC-008)
- Antenna Design & Construction (EC-009)
- Radio Frequency Propagation (EC-011)
- Analog Electronics (EC-012)
- Digital Electronics (EC-013)

Cost and Availability

- Cost varies with the class EC-001 costs \$45 for ARRL Members, \$75 for non-members
 - Class Starts Apr 4th, ends May 30th
 - Antenna Modeling costs \$85 for Members, \$115 for non-members
 - Classes start Mar 21st, ends Jul 11th
 - Apr 18th- Aug 8th
- (cost is \$30 more for non-members, ARRL membership is \$39)

Other Emergency Resources

- <http://www.emcomm.org/> (amateur radio oriented)
- <http://www.disastereducation.org/> (general information)
- <http://www.fema.gov/> (Federal Gov't)

Do it Yourself

- Electronic Kits
 - Elecraft
 - Ramsey
- ARRL QST and QEX Projects
- Club Projects
- Building own gear and antennas
- Repairing classic radios
- Learning a new operating mode (PSK, satellite, SSTV, Etc)

Conclusions

- Amateur Radio is never without frontiers to explore
- Training can be fun, and can be of great assistance in an emergency situation
- There appear to be more options available for training today than ever, even if modern radios are less “hands on” than before.