

The University of Amateur Radio

First of all, wishes for a Happy and Healthy New Year to each and every one of you from all of us here at CQ magazine.

Last fall, I was helping teach a ham radio licensing course at one of our local universities, and as I walked back to my car after the first class, I realized how much ham radio is like a busy college campus. There were things going on everywhere. Classrooms were filled with students and professors, of course, but there was more. As I walked past the art building, I saw students working on projects. As I walked past the theater, there was a dance class going on in one room, while in the lobby, a few people were practicing dance moves on their own. People were busy everywhere, in many cases with a focus on learning by doing, rather than just reading a book or listening to a professor. Our own ham class blended right in. Yes, we spent some time in a classroom, but we also had gone to the roof to look at antennas and to the club station to listen to hams on the air to try to make a couple of contacts on our own. Even back in class, we split up at one point with HT-equipped hams spreading out with students to different parts of the building and giving everyone the opportunity to talk on the radio.

But it was the wide variety of activities—all going on separately but together in one location—that really caught my attention. I began to visualize the imaginary campus of the University of Amateur Radio.

An Imaginary Campus

In the international studies building, the DXers would be discussing the latest DXpeditions, techniques for breaking through pileups and, in the graduate-level courses, perhaps developing strategies for encouraging the growth of amateur radio in countries with reluctant governments, or maybe meeting with foreign regulators to discuss how ham radio can become a cornerstone of training for a developing country's own cadre of telecommunications experts.

Over in the social sciences building, a class of freshmen would be working on basic emergency communications techniques while in another class, students would be working with emergency management officials on integrating amateur radio into their communities' emergency response plans.

Meanwhile, at the earth science building, one group of hams might be studying gray-line propagation while another might be investigating long-delayed echoes, and yet another will be working on building antennas. Next door in computer science, classes might include how to build high-speed multimedia amateur networks, the latest developments in digital voice and digital techniques for meteor-scatter and moonbounce communications. Classes on circuit design and construction techniques would be under way in the electronic engineering building, as well as graduate courses in multiple receive sites and networking for repeaters.

Over at the radio sports center, contesters would be practicing for the next major on-air competition (or maybe planning a trip to some Caribbean island for "spring break"), while the football field was being used for antenna gain measurements and the foxhunting team was scattered around campus trying to track down a hidden transmitter.

All of these things *are* going on, every day, at the University of Amateur Radio, although not in a centralized location such as a college campus, and often, not in a formal classroom setting. We tend to be more like the dancers working out new steps on their own in the theater lobby. Another way that ham radio resembles a university is that being "admitted"—getting your license—really marks only

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the beginning of your education. Like college, ham radio is what you make of it. Many opportunities are offered, but it is up to you seek them out, although it's important for more experienced hams to offer guidance. As in college, your chances of success improve if you have an "academic advisor" for your studies at the University of Amateur Radio, someone who can—without necessarily being an expert in a given area—point you in the right direction for learning more about your area(s) of interest.

A Way of Thinking

Another major similarity is in the broad perspective of a university education. Beyond teaching specific facts and other information, a major goal of college is to teach students how to think in an organized way—how to approach, research, analyze and resolve a problem. Ham radio does the same thing. Ham radio teaches a way of thinking that emphasizes problem-solving, and figuring out how to meet a goal by using available resources. Hams know how to make things work and get things done, and learn not to be intimidated by machines with lots of parts. Everything works in a logical way.

For example, there's my washing machine, and being a ham just saved me from a big repair bill. The washer kept cutting off in the middle of a cycle. At first—using my ham thinking—I figured it was some bad switch contacts and tried skipping around the dial until it started working again. But there was no predictability to that, and I was about to put in for a service call when I finally realized that what *really* made a difference was whether I was leaning on the lid while fiddling with the dial! If I did, the machine often started up; if not, it generally didn't. That led me to the interlock on the lid, and the realization that the lid had warped somewhat over the years—so the little bar that pressed the interlock switch was out of line. A little twist to the inner lip with a pair of pliers solved the problem and saved us the cost of a service call. Without "ham thinking," I doubt I would have thought about the problem in a way that led me to figuring out that simple fix. This way of thinking can be applied not only to washing machines but to our jobs and other aspects of our lives as well.

A Few Differences

There are also some significant differences between the University of Amateur Radio and real colleges. First and foremost, there is no tuition. There are also no grades, no papers, no deadlines. If a "course" doesn't turn out to be what you expected, you can "drop" it at any time without a penalty. Plus, there's never a need to "declare a major," although many hams choose to do so, diving into a particular area of amateur radio with great gusto, sometimes becoming leading experts in that field, or perhaps "changing majors" after a period of time. Others, such as your editor, are "liberal arts majors," learning a little bit about a lot of things rather than specializing in one or two specific areas. (As a result, I know a little about a lot of things, and a lot about nothing!)

One other difference is that you never graduate. There are no degrees, no diplomas (no massive loans to pay off), just more knowledge and a greater understanding of part of our world and how it works. Being a ham should be a lifelong learning experience. In the class I was helping to teach, two of the other instructors were brand new hams themselves, having taken the same course earlier in the year. They taught not only to share what they'd learned but also to reinforce it by learning even more about their chosen topics in order to be better teachers. Make yourself a new year's resolution to be like them: Keep learning. Keep teaching.