

**Transcript:** [Show 21 February 6, 2012](#)

Up next on ATE-TV: Preparing a Workforce of Network Security Specialists.

Network security specialists defend computer networks against breaches and gather evidence to be used in prosecuting cybercrimes. The demand for network security specialists will continue to grow, as businesses invest more heavily in protecting computer and data systems.

There's a lot of sensitive information that's out there, and we have to try and keep it secure so that the wrong people don't get a hold of it.

We're really teaching the practitioners, so we're teaching the people that actually install the equipment, maintain the equipment and actually ultimately protect our systems, our infrastructure. They're our first line of defense against the types of threats that we have in our systems today.

The basic prerequisites were you have to know what a router and a switch is, you have to know what an IP address is.

Security covers every aspect of computing; databases, programs running, the websites, programs distributing data -- everything needs security.

So let's say for instance that I want to look specifically for SQL vulnerabilities.

Teaching cyber security is a fairly complex process. You have to recreate different scenarios and so on, so we'll recreate them in the classroom, so they're going to get hands-on experience of things that they're going to see as soon as they graduate our program and are hired into a position.

I've got a whole set of plug-ins that do nothing but look specifically at FTP servers. We'll have hacking competitions, where we'll have to bring up a network that would represent a typical business, and then we have a team that tries to hack our networks and bring down our business services.

One of the classes I'm taking is called ethical hacking. We secure devices and secure operating systems so that when a malicious attacker does try and get into your network they have a much harder time, or they can't at all.

Companies come in and demo the latest products. We may have professional pen tester come in and talk to them and demonstrate to them, so our students are actually seeing the types of threats



and vulnerabilities that they would see in the real life.

The majority of our students are students that are interested in doing things. They have that curiosity, and you have to have that in this field. We have to keep one step above the criminals, and the only way we can do that is if we have students that are going to have a knowledge level and a curiosity and ability to experiment with things so that they can recognize something that's unusual and be able to take the steps to stop something like that.

For more information on anything you've seen today, explore our website at [atetv.org](http://atetv.org). Thanks for watching.