

Transcript: [Episode 10 / November 23, 2009](#)

Coming up next on ATETV.

Environmental Technology.

The equipment that we're working on in here is the same kind of stuff that typically is being used by water analysts and waste water and all that.

Biotechnology internships.

It's pretty exciting. I've got some insight into what it's like to be out there in the real world, what it takes to get the job, what the challenges are while you're working.

And math and science careers.

We definitely want people who can handle the mathematics, the applied science because without that, they don't have the technical expertise that we require.

Now, on "ATE TV".

From across the country to your own backyard, "ATE TV" shows you the many advanced technological education opportunities available at your local community college.

Cape Cod is known for its sand, surf, and sun, but did you know the Cape also has some exciting technology training opportunities?

Let's take a look at Matthew, who's starting his career in environment technology at Cape Cod Community College.

So as soon as Katrina comes back with her water sample -

She can start one.

Excellent.

OK.

My name is Matthew Kusza, and I go to Four C's, Cape Cod Community College, and I'm in the environmental technology associates' program. I decided to come to a technical college to just kind of switch careers.

I have four kids and keeping busy with that and school and, you know, working to pay the bills, and most of the classes are at night. So that's very supportive in terms of a work environment.

We're doing water sampling in this class and learning how to basically run laboratory work for, a water sampling company or something like that. And a water analysis.

There's definitely a lot of hands on to prepare you for the workplace, which has been great.

I've got more water in some of them than other ones.

That's fine. So you'll have plenty of water for all of them.

OK. That looks great.

The program is designed so that, the equipment that we're working on in here is the same kind of stuff that typically is being used by other, you know, environmental technology company, water analysts and waste water and all of that.

Everyone has to worry about water and waste water. So those are, like, growing industries they're not going to go anywhere. There's a lot of opportunity, I think, for green jobs as they say. Green tech jobs.

I stayed away from sciences, you know, before I came here. I had such a bad experience as an 18-year-old in chemistry and biology. I just shied away from it.

And so now I'm learning that I, you know, I really do like science and technology.

So total dissolve, solids dried at 180 degrees.

Yes.

Once I graduate, I'd like to get into either a laboratory setting. I'm kind of weighing my options right now and trying to see if I really like laboratory work.

Can I have a brush?

Well, in the long run I hope I'm going to get into a job that I feel like I can make a difference at. Ultimately, I hope to get a good-paying job. You know, it doesn't have to make tons of money, but something to make a living at. You know. That's what I'm looking for, doing something that's interesting.

Matthew's found a great program that he enjoys and is flexible enough to work with his schedule. He's heading towards an exciting laboratory-based technical career. If you've been thinking about going back to school, but are limited by time or money, your local community college could be just what you're looking for.

Love biology and math? Interested in gaining practical industry experience while still in school?

Community colleges like Southwestern College in San Diego offer technology internships that can provide you with real-world job knowledge to put you a step ahead.

We're going to have a contest here. We're going to see who had the highest transformation efficiency.

The biotechnology program at Southwestern College started in 1999, and our idea was to increase the number of technicians available for the biotechnology industry from our population.

When we were in the process of the biotechnology program, we made contact with the industry to

find out what industry's looking for, and according to that, we designed our courses and we designed the content of our courses, and, therefore, when our students go through the program, they really come out prepared to do entry-level work in industry without any additional training.

Internships are the most important thing they can do. It's really the capstone of our course. Students can learn procedures and techniques here, but it's not part of a research project.

The internship adds to their experience because once they've completed an internship, they have the full experience of a job, and from then on, they are ready to go.

I got an internship working in the Phillips lab at the Maxine Research Institute. I was doing some basic entry-level work, but as we got to know each other, they learned that I was a little more advanced than typical interns. So I was given more responsibility and was taught how to do some more technical work, and that also helped me get an internship with the Department of Energy at the national lab in Oak Ridge, Tennessee.

It's, it's pretty exciting. I've got some insight into what it's like to be out there in the real world, what it takes to get the job, what the challenges are while you're working. The students leave here very prepared for, for the challenges that align their future.

The industry now comes back to us and actually is asking every year for interns to come. We had, we still to this day have a hundred percent hiring rate with the industry of any intern that has completed a ten-week internship with an industry host.

If you want to graduate prepared for work in a technical field like biotechnology, be sure to check out your local community college for programs that offer industry internships.

Have you ever asked yourself when am I going to use math and science in the real world?

Well, the students at Florence-Darlington Technical College in South Carolina have your answer.

Ten miles from this point.

OK.

Three miles -

We have projects that entail all of the classes that we're taking.

Algebra, trigonometry, physics. So it gives us a real idea of what we'll be dealing with after we graduate from the college.

In our world, it's of utmost importance that they have science and math because without that, they don't have the technical expertise that we require.

We definitely want people who can handle the work, the mathematics, the applied science.

We do a lot of math, a lot of calculating, lot of formulas in order to reach your voltages that you need.

The science part of it's the theory and, you know, to get the basic knowledge in, in your mind, the way of thinking, troubleshooting, that type of stuff.

I didn't know we would actually have to use statics in, like, our field, but it has a lot to do with it, and trigonometry also.

You've got 32 and 26 with their values.

Math, you know, is a core course in almost any job that you want to be in, but you really need to pay attention to the basic skills in math.

Math, science, and physics are very important in my position. You have to do scientific theory of how electrical equipment works. You need to make sure you've got all that knowledge captured and know how to use it.

Math and science gives you the fundamentals and the basics to help understand a lot of the processes. So without those foundational skills, you won't even be considered for a job with us.

Having a strong foundation in math and science has definitely helped those students advance their careers. If you're looking for more information about technical career opportunities, be sure to visit your local community college.

For more information on anything you've seen today, explore our website at atetv.org.

Thanks for watching.