

**Transcript:** [Episode 8 / November 9, 2009](#)

Coming up next on ATE TV.

Ok your mission clock is started.

Underwater robots, online distance learning, and HVAC 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.

Let's meet Jill Zande and the students competing at the MATE international ROV competition. All of the teams have applied their math and science skills to create underwater robots known as ROVs or remotely operated vehicles.

We are putting the scores as we get them onto the website so you can keep track of your mission scores. Ok who's the team captain?

I am

Right.

What's our mission time?

We've got 4 minutes remaining.

This is the MATE International ROV competition. ROV is remotely operated vehicle. You can think of them as underwater robots.

Ok who's gonna be doing the temperature reading?

I am.

So are you guys ready for your mobilization period?

This competition, it couldn't happen without the support of the Marine Technology Societies ROV committee. The committee actually came to us looking for help. They realized that the industry was in trouble, that they need good qualified people and they weren't finding them.

And we kind of see where you lined up.

So they really came to us looking for a way to reach more students, get them interested in the industry and help them to develop the skills that the industry needs and that's how the competition started. ROVs are the vehicle; pun intended that we use to teach students technical skills.

We want to just disconnect that power entirely.

Their challenge to apply what they're learning in the classroom to the real world, to designing and building a vehicle to compete in real world mission tasks. All the engineering, the science, physics, math all that you need to know to be able to put one together.

And then you slide forward and it comes right to where it's supposed to be that's how you designed it.

And from there they really do need skills like team work, project management, managing budgets, the big one is working together as a team.

Present manager must maintain control over the ROV while it's in the water.

Ok your mission clock is started, 15 minutes.

We have 52 teams from middle school, high schools, universities, community colleges around the world here competing.

They took it apart at the border.

ROVs in the real world are used to support offshore oil and gas industry, they're used in the telecommunications industry, they're used in scientific research, more recently they've become very popular protecting our ports and harbors.

The skills that they learn they can apply them in many different fields. They can become ROV engineers and pilots or they can choose to use their engineering, their technical skills and support other underwater technology platforms.

We have battery, LCD control.

We've got foundations, we've got research institutions, we really have the whole ocean community together supporting this event and that really tells me that those individuals, those organizations truly believe that what we're doing is valuable, worthwhile and in the end gonna provide them with good people for their workforce.

From marine research, to homeland security, to the oil and gas industry ROV technicians and engineers are in high demand. This event is an excellent opportunity for students to show off their team work and skills to potential employers.

Are you motivated to get a degree but limited by your location? Then online distance learning is for you. Community colleges across the United States offer a wide range of online courses and degree programs. All you need is access to the internet and the drive to succeed.

For online distance learning what we tell our students is that they need to have regular access to the internet. The technical skills that they need in these courses are actually very low. If you can browse the web, and if you can follow links, and you can send email, and you can attach a document, you can basically do everything you need to participate in an online course.

One of the benefits of the online distance learning is that we can make connections beyond the traditional classroom and connect out into new knowledge that's being created all around the world. Most of our students are finding that even if they're taking classes on campus

that they can take an additional course and they can complete their degrees faster if they combine online instruction with their face to face instruction or maybe they just like the kind of instruction they get online where they can interact you know using technology in a way that's kind of interesting and more like what they do in their personal lives so that they can work online in the times or places that they chose.

For all our courses that are offered that are completely 100% online you really don't have to live near the college to take the course. You could be in the military, you could be overseas, you could be in Bagdad and you could be taking Introduction to Psychology at Middlesex Community College in Massachusetts.

Looking for a variety of courses, 24:7 access to online materials and no commute time then online distance learning might be for you.

Check out your local community college to find out more.

Interested in a cool career that's in hot demand? Then have a look at what it takes to start a career as an HVAC technician.

My name is Hayden Mark, I'm from Grenada. I came to Boston 3 years ago. I'm now in Benjamin Franklin Institute of Technology majoring in HVAC. HVAC is basically heating, ventilating and air conditioning.

I have 3 kids and 1 on the way. I work part time. I attend school full time and my wife she works a third shift. When I just came in all of this stuff was new to me. I was kind of kind of scared but my instructor, he's a really good guy, and I think I'm blessed to have him as an instructor because I learn so much just from listening to him talk and not just by in the book but just the way he does stuff.

Staff here is really good; they're always ready and willing to help so the learning environment is really good. For example like just the basic refrigeration system they have on the wall that's the stuff that's in the field so the hands on is really good.

The program here is accredited so once I finish and I graduate they knock 2000 hours off my apprenticeship which is really good. I will always be in demand cause they just can't find enough HVAC technicians and in the summers they need ACs, in the winter they need the heat. So I know I'm in high demand and I'm gonna have a really good paying job.

I'm just having a great time here, just learning all this stuff. It's kind of difficult but I know it will be worth it in the end because this is what I really want and I know I'm gonna have a better future for myself and my wife and the kids.

Well it looks like Hayden is well on his way and just think by attending that program and cutting down on his apprenticeship hours he's put himself in the fast track to a lucrative career.

For more information on anything you've seen today explore our website at [ATETV.org](http://ATETV.org).

Thanks for watching.