Transcript: Episode 2 / September 28, 2009

Coming up on ATETV Engineering

I really wouldn't do anymore than a tenth of a mile. Look at the speeds we're going at.

GPS and GIS.

I just press the button, see the simulator take over. I'm driving hands free across on my AV line right now.

And rapid manufacturing

What we end up with after we're done we're getting a full 3 dimensional model.

Now on ATETV.

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

If you've ever thought about changing careers or considered going back to school to catch up on new technology, our new segment proves that it's never too late.

You're talking about the altitude.

Where I want is in between the 2 charges.

Everything counterclockwise is positive and everything clockwise is negative.

I don't want it to be too close to the turning point.

Which we try the first one.

Just that one. Just that one.

We had to draw a circle around it.

Came back to that. OK

The school I attend is Florence Darlington Technical College and I'm in the electronic engineering technology program.

Yeah it's gonna be.

This is still wet?

I think so.

My advice to an older person who may be considering coming back to school is that it's never too late. It is a sacrifice that you have to make to come back, a lot of things you have to put on hold.

But there is time to achieve something like this. I graduated from high school I went on to attend South Carolina State University and majored in accounting and marketing, minored in economics.

Unfortunately I wasn't able to finish that degree and I ended up working for years and eventually decided to come back to school. Read from the bottom?

Once I came out here and started meeting some of the staff and they were very warm and welcoming and it just it just kind of sucked me right on in [laughter].

With PowerPoint somebody else is gonna have to step up and do that persons part. I really wouldn't go anymore than a tenth of a mile. Look at the speeds we're going at.

Start from here and somebody got to be on that side.

I decided to come into the electronic engineering field. I felt that I was behind in a lot of things technology wise and so in order to enhance my horizon in the technology field I thought that this would be a good avenue for me to come in and try to learn a lot of technical aspects of things that are going on now a days.

Now all I want is in between the 2 charges ok?

Competition in the jobs is very high and I need that extra effort in my classes. I put forth a lot of extra effort to try to make certain that when it comes time to go out into the work field and interview or trying to seek that job that I have something extra to carry along with me to try to make things work out in my favor.

After graduation my plans are to utilize the school as far a job placement is concerned and hopefully to start a career in the engineering technology field hopefully with a energy company in this area, DuPont we have several companies in this area that you know do work in that field. It was something new, something fresh, something that I hadn't done before and I just wanted to come in, I wanted something that would challenge me.

Najee is really motivated to make it in the field of electrical engineering. He already has plans to give back to the community and be a role model for his family.

As new technologies like GPS and GIS are applied to the agricultural industry there's a growing need for skilled technicians who have both mechanical and computer skills.

Kirkwood within this agriculture GPS GIS program provides a lot of different skills for our students and some of those include computer skills and some of those are mechanical skills.

Pushing goes on first and then this air clutch goes next to it and then you add this clamp.

Ok that's the order that it goes on.

I think what we can provide is that diverse set of skills for the students to be able to gain employment in a wide range of occupations.

The best class that I've taken here so far would be precision Ag. hardware. It's more hands on. You learn a lot. You put things on. We got great dealerships that work with us and give us the equipment to put on our tractors and planters here. The software classes were probably the most important part of it. Without that software and knowing how to use that software all the data you collect in the field is probably useless.

Agriculture technology is the use of new technologies applied to the agriculture industry. I think a lot of people will recognize GPS. We can use that same system in a tractor in order to guide it through the field and help plant.

I just press the button, see the steering wheel take over. I'm driving hands free across on my AV line right now.

It also refers to geographic information systems. That same system is used to analyze data from the field and help farmers make a better decision.

As farming operations get larger and it becomes more expensive to farm that acre of ground the more guys more toward the technology side of things to help offset those

costs a little bit, there'll be a large opportunity for guys with technology skills or degrees in technology that can help those guys get to where they want to be.

For many years precision agriculture kind of hit a plateau and farmers didn't really see the economic value of this technology. With this newest technology the guidance systems, the seed control, the swap control type of technology, there's a lot of farmers excited and it seems like we cannot graduate enough students to meet the demand.

High tech agriculture companies that implement new technology in computer software can only succeed if they hire highly skilled technicians. Your local community college can help you get the education you need to become a part of this growing field.

Now we're going off road to Saddleback College where 3 dimensional models printed by computers are helping students change the pace of design and manufacturing.

I'm gonna pass this around and pull your project out, set it down in front of you and then we'll go over that.

Rapid Manufacturing is taking a 3 dimensional model and being able to produce it in less than a week. We got our model that we could see in the cad.

Ok open the door.

Set up the machine and I'll literally print that physical model. It's like basically sending it to your home printer. So what we end up with after we're done we're getting a full 3 dimensional model. But some of these parts can actually be functionally used. Kawasaki Racing came to me because rapid prototyping hasn't actually hit the racing market yet. For their off road racing they don't use the headlights during the day so what they want to do is replace the head light with a vent so what we went ahead and did is we reverse engineered the headlight by laser scanning it and then we went ahead and built a final part which has vent holes through it and vent lines on the bottom and that's their final product.

For the medical industry our basis is pretty much just taking MRIs that doctors will give us and we'll go ahead and print those actual models, give it to the doctor so now he's got something on the table that he could actually physically look at. For us students, we're actually working in the field but we're also learning at the same time. So it's kind of like an internship but we're getting paid for it.

I basically want to focus on the military side either go to Boeing or work for the navy I'm not really sure yet. I've always dreamed of being able to design a part, yeah I got it on the

computer wow I want to actually physically have it. I want to see what it looks like. So now I'm actually able to prototype something. It may not be the actual material that I want but I have a physical model now.

Community colleges like Saddleback are giving students the education and opportunities to start their careers and begin designing the future in record time.

For more information on anything you've seen today explore our website at ATETV.org. Thanks for watching.