

**Transcript:** [Episode 14 / December 21, 2009](#)

Coming up next on ATETV

Biotechnology

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Going into the classroom and sometimes bringing \$20,000 worth of equipment so it's both enhancement of their education and also the wow factor of what you can do with this field and that they can do it.

And graphics engineering technology.

I called around to a couple of architects and they told me to come here for the engineering technology program and I'll be able to work with an architect in 2 years.

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.

Are you a high school student interested in working in a hands on biological laboratory environment? Or maybe you enjoy taking a chemistry or biology course but aren't sure which career is for you. Then take a look at the Biotechnology Program being offered at Southwestern College.

San Diego is the hub of biotechnology in the entire country. We have over 500 biotechnology companies in San Diego all in need of entry level technicians.

There's a deficit of people at these basic laboratory research positions in the country for laboratory technicians.

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.

So our thrust is really to increase the number of students coming in from the community from the high schools.

We have a high school outreach where our biotechnology program goes out to the high schools and introduces students to what we have to offer at Southwestern College.

Training their teachers in the specifics of molecular biology, techniques that are used in biotechnology and then going into the classroom and sometimes bringing \$20,000 worth of equipment so it's both enhancement of their education and also the wow factor of what you can do with this field and that they can do it.

And my students get to play with the high tech equipment that you see at CSI and they get

to do really cool experiments such as finding out whether if they're eating food that's genetically modified or finding out their exact genotype by taking scraping their own cells and running a gel and seeing if they have a DNA or not.

When we go into the high schools it's really more the spark that they get than the content. They get the content, they get to actually do things that are on their state standards that they're just learning very dry in the book and we bring all of that and they can actually do it hands on and you really see them light up.

Oh they love it. They will come after school and even if I don't give them extra credit they'll come.

I look for those who are comfortable in the lab who really like doing this work because part of our work is done in the field but most of it comes back to the lab and we look for those who like the lab in every sense. The record keeping, the precision, the quietness and the multiple hours of dedicated work but primarily we're looking for those who have found out about the field and are excited about it and are willing to make the investment.

One student of mine was really turned off by science and she totally changed her mind and went back into science because of the experience.

So stepwise from the high school the original ah ha point, the exposure, the initiation of the student so to speak, recruiting them into the program, having them meet students from all walks of life enriching them not just in knowledge about biotechnology but in experiences with students from varied levels of education and background and then giving all of them an experience of the job experience through internships and prepping them for success in their careers.

Southwestern College is doing some great work exposing high school students and teachers to cutting edge biotechnology.

Your local community college has similar programs. Check them out.

Looking for a highly rated and affordable college option? Like drawing, math and science? Interested in working with an architect after 2 years of college?

Ashley, a student at Florence-Darlington Technical College is all of the above.

You're talking about the altitude?

All I want is in between the 2 charges.

Everything counterclockwise is positive.

You don't need to be too close to the turning point.

My name is Ashley and I've been at Florence-Darlington Tech. for the engineering technology program in graphics for 2 semesters now. The first semester is math and physics.

It's the closest college to my house and it's very affordable and it is very highly rated.

This is the memo for the flight plans.

When I was in high school we took a drafting program and that started my ambition for architecture then my father he noticed that I was really good at it so he kind of steered me in the right direction. I called around to a couple of architects and they told me to come here for the engineering technology program and I'll be able to work with an architect in 2 years. It's a lot cheaper than going to a 4 year college.

This project is dealing with aircraft control. We are looking at the flight plans of 2 different planes and we have to determine which plane will be safe to travel and the direction that it's going and which flight plan that we will have to change for a different plane.

Engineering is a math based study; alot of drawing and drafting depending on which field you're going into. We use the drafting program and we use Auto Cad Program which deals a lot with solid works which is drawing on a computer instead of drawing on paper with pencils which is a lot easier trying to figure out what we need to.

It's very different going to school with all guys. I don't have much of a problem with it but I have to step it up a little bit, make sure that I study harder so that I'm a little farther ahead being that I have 2 children and that I am 5 years out of school.

My oldest child goes to the Florence-Darlington Tech Head Start Program and my youngest child is in daycare so I am able to stay after school and study or do homework and then when I go home I'm able to do that after they go to bed.

After I graduate which will be in about 2 years I plan on working with an architectural firm designing buildings. I am so happy that I made this choice.

Ashley's found a great way to turn her love of math, science and drawing into an exciting and high paying career.

If you have similar interests be sure to check out programs at your local community college in graphics engineering technology.

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

Thanks for watching.