

Transcript: [Episode 31 / April 19, 2010](#)

Coming up next on ATETV.

Biotechnology.

And then we have four core biotechnology courses that address the DNA molecule theoretically and in the lab. We teach them all the laboratory procedures needed to work in a lab.

Career opportunities for technicians.

It's very, very important that these young people understand that they can get a technical degree and possibly make up to \$90,000 a year.

And internships in manufacturing.

We get the request to assist companies with new products and we have our students do the work. We pay them. It's not free labor. So they get to learn again on real-world projects and get to build their resumes for employment.

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.

Interested in biology, chemistry, and science? Looking for an exciting career in a growing industry? Let's see what's happening at Southwestern College in San Diego.

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. We include molecular biology all the chemistry required to go into these classes and then we have four core biotechnology courses that address the DNA molecule theoretically and in the lab. We teach them all the laboratory produces needed to work in a lab.

So how many colonies did you get?

We have 268 colonies on one plate and 373 on the other.

The core course of study for the biotech program is four courses. Two lecture courses, DNA Science 1 and DNA Science 2. And then the two laboratory courses, Introduction to Research 1 and 2. These are five hour lecture laboratory courses that start from the ground level making solutions -- very, very basic techniques -- all the way up to DNA sequencing and other molecular biology techniques that they would be using in the laboratory.

There's also the core courses that surround that: Basic biology, chemistry. So in the beginning of the year these students you know started with very basic skills learning to use micropipettes and

making solutions very basic equipment. And now they're starting to graduate to some more molecular biology and along the way learn many important techniques gel agarose, gel electrophoresis, column chromatography among them.

When our students go through the program they really come out prepared to do work in industry without any additional training. They have the full experience of a job and from then on they are ready to go.

Wow! There are some great opportunities in biotechnology for people with the right technical skills. How can you get the right skills? Be sure to check out your local community college for programs in biotechnology.

What awaits you as a professional technician? How about a secure well-paying high-demand job that is challenging and rewarding.

Take a look.

One of the great benefits of getting into a technology career is you have a better chance of starting a company. If you have entrepreneurial spirit you can build something unique that actually solves a problem. It's much more difficult to do that if you don't have that background to do it yourself.

There are professional technicians where this is their career path and those salaries can be -- end up in the 40s and 50s. Some technicians even higher depending on the specialized skills they may have.

The salary ranges. It's definitely somewhere over 50,000.

It's very, very important that these young people understand that they can get a technical degree and possibly make up to \$90,000 a year.

One of the most interesting things about the field of telecommunications is how dynamic and diverse the field is.

And the nice thing about research is that it tends not to be the same old thing day in and day out. There are always new challenges, new problems. Research is always moving forward in a very aggressive kind of way and so the problems that one addresses are always changing which makes it stimulating.

Just put it in the bracket right on the base.

If you have good communication skills and you're bright, you can do really well at a start-up software company.

You know. That will be perfect.

The future is bright and America really needs that. As we get more into manufacturing and we equalize the global economy you'll see there's going to be a lot more there.

And you will make probably double your peers that went into a non-IT or non-technology program. There's plenty of opportunity in this space and it's just going to continue to grow.

Visit your local community college to find out how you can prepare for an exciting career as a professional technician.

Want real-world industry experience while still in college? Internships are the way to go. Let's take a look at what's happening at Saddleback College.

We're going to do some silicone casting. Let's talk a little bit about different kinds of silicone.

Internships are very valuable. It gives them a real-world experience without this type of experience what is a student expected to do when he gets to industry? We try to give them real-world feedback -- immediate feedback on something that they did. That's invaluable.

Keep a nice ribbon going. Nice and even.

Our students work directly with companies to help them design new products so they get real-world experience and the companies need this help.

Kawasaki Racing came to me because rapid prototyping actually hasn't hit the racing market yet. What they want to do is replace the headlight with a vent so 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 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.

And every time the phone rings it's a different challenge. We get company products or requests to assist companies with new products and we have our students do the work. We pay them. It's not free labor. So they get to learn on real-world projects and get to build their resumes for employment.

A 21-year-old student coming out of a community college goes to try to get a job some where and he has that internship in his portfolio. That's pretty impressive.

If you want to get paid for working in the real world while still in school, be sure to check out paid internships that are available to you at your local community college.

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

Thanks for watching.