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Coming up next on ATETV, Rapid Manufacturing.

You know getting your hands in there and seeing this product come out of nothing is pretty amazing.

Information technology.

Anybody who needs to keep data which is just about everybody nowadays are our customers.

And Biomanufacturing.

In this lab here we basically produce proteins that can then be used by pharmaceutical companies to produce drugs.

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. Want to turn your two-dimensional ideas into a three-dimensional reality? Let's take a look at what's coming out of the Rapid Manufacturing program at Saddleback College.

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

Rapid technology has allowed us to take three-dimensional computer data and create real world objects out of that in a short amount of time.

Alright, so we're going to do some silicone casting and let's talk a little bit about different kinds of silicone...

Using a hands-on approach for education and training is critical in our opinion.

The equipment you see in our laboratory is the same equipment industry uses.

Okay, open the door...

And in our lab the students run the equipment.

We want the students to be able to be confident and we want them to be proficient.

Me, I'm a real mechanical person but put me in a classroom I'm not really into it. You know getting your hands in there and seeing this product come out of nothing is pretty amazing and just to watch the way a part is made is really cool.

And in our opinion that's the only way to learn is hands-on. Let them make mistakes. They're not going to hurt the machine. They learn and they don't forget.

Many of the companies particularly the fortune 50s that are involved with our operation out of Rapid Tech are interested in bringing their high-end manufacturing design and tooling back from overseas which is going



to create very high-waged jobs here and there's a shortage of technicians so we're in the right place at the right time to help.

So, what we're going to do now is we're going to turn the vacuum on...

Large aerospace companies are now looking at finding new ways to make products. Our students have the skills to complete those tasks and they fill that void for companies.

This gauge here will tell us how much backing...

We've had offers from companies to hire our entire class sight unseen because of the way we go about teaching technicians how to work in an industrial environment.

What I learned from the projects we do with companies we turn right back around and filter it through the classroom. Okay, here's what the company is going to be looking for in the next three years for employees. So, let's incorporate that and let's give those students the skills that these employers are going to be looking for.

Companies are looking for this right now because it is more or less the wave of the future and so me knowing how to do it puts me in a better spot than a lot of people.

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'd like to have, you know, have a really cool job, you know, working for, you know, a company making, you know, good money and doing something that's really fun and hands-on. That's, you know, that's all good by me, you know.

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, you know, 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.

Part of the fun and the excitement we have it's a wow factor every time we walk in the lab.

Hands-on learning with industry standard equipment and paid internships that could lead to fulltime high-tech careers. For more information on Rapid Manufacturing programs be sure to visit your local community college.

With computers networked all over the world there's lots of information out there but have you ever stopped to think about where and how all that information is securely stored. We're going to EMC, one of the largest storage providers in the world to find out more.

We're the I in information technology. We are the information component. Anybody who needs to keep data which is just about everybody nowadays are our customers.

The growth of data is just so prevalent and feeding upon itself.

Are you going to manually go through and look at all of your archives and where you've put all of those all the time or do you just want to know that they are there? If you sprain an ankle in San Diego and your from Boston, Massachusetts, you're doctor can get a hold of your x-ray because of these massive storage devices that power x-ray machines and banking data bases.



At the consumer level online storage is now available to you to be stored offline, to be stored securely. If you want to go back in a year look at your bank account you can go and pull up that information but from the banks point of view that year old information isn't as relevant to them right now as today's transactions coming from all those ATMs. So, that's where the value of information comes into play to help you automate and prioritize and move that information around. We do that on a bigger scale for these corporations that allows them to move massive amounts of data pretty seamlessly but realize that it's there, that it's secure and that they have access to it. What we like to say is that we manage your information from the time you process it to the time you destroy it.

You think of Facebook or maybe linked in as a professional network, MySpace, they have all these tools where people can interact in many different ways and so, we're providing an infrastructure to enable people to do that. So, you will have your online photos, you know, you have your e-mail accounts, all that information is being stored somewhere. Basically, we provide the solutions to do that.

There's more digital data that will be produced in the next two years than was produced in the last ten. So, don't you want to be in that industry? I mean it's growing exponentially.

Can you believe that more digital data will be created in the next two years than was in the last ten? Talk about the demand for jobs. Be sure to visit your local community college for more on the IT programs they offer.

Are you all about the details and have a strong interest in chemistry and biology? You might want to consider a career creating and producing pharmaceuticals. Take a look.

My name is Matthew Dobben. I started out basically in high school pretty much excelled in science. Traveled for about four years not really knowing what I wanted to do and after that four years I decided I'd like to go back to school for science. They have a great program here. It's very in depth. We have small classes. Here, it's one-on-one pretty much all the time. I liked it because, you know, it was close and it really only had the biotech program in this area so that's pretty much what drew me here and they do have a great facility. In this lab here we basically produce proteins that can then be used by pharmaceutical companies to produce drugs. This area right now is like recombinant DNA technology. Next door we research and then we use this process here which is chromatography, which is purification. You need to be detail orientated, you need to be very organized and you're talking about, you know, millions of dollars worth of drug.

We have what's called SOP's here which are standard operating procedures. You have to read verbatim every step in order to run a process anything that you do. We have a company in town here Lonza who hires a lot of people from this class and they do like to hire students like myself.

You can start your career in Biomanufacturing in as little as two years and your local community college can help. For more information on anything you've seen today explore our website at ATETV.org.

Thanks for watching.