

# OPTITEX

# FASHION FORWARD

## INSIGHTS FOR EDUCATORS OF TOMORROW'S DESIGNERS

### "STRATEGIC ILLUSIONS" PROJECT AT SUNY-BUFFALO STATE HIGHLIGHTS PRACTICAL VALUE OF TEACHING VIRTUAL VISUALIZATION

In the Fall semester of 2014, the Fashion and Textile Technology department at the SUNY – Buffalo State ran an advanced engineered garment design teaching project, called "Strategic Illusions". The project enabled students to learn how to use advanced textile design techniques to develop designs to counteract the appearance issues of wrinkled fabric.

Six students were chosen to participate in the project. They came from two classes: a computer-aided design class and an advanced garment assembly class.



Using Optitex software for pattern making and virtual sampling, the students were told to develop engineered textile designs for 100% cotton fabric. Specifically, they needed to incorporate strategically placed wrinkles or ruching to embrace or camouflage the naturally occurring wrinkles on the garment.

As a result, the students created designs that incorporated multiple surface design techniques, and engineered garment design placement.



#### STUDENTS' EXPERIENCE:

*"I have expanded my creativity and have learned techniques to create specific to garment patterns... I have created work that is nothing like what I have learned in any other class. The garments I have designed take my portfolio a step higher."*



Initially, a muslin sheath was wear-tested to locate naturally occurring wrinkle areas during normal wear. Using Optitex software, students developed six garment style variations of a basic muslin sheath. Students created customized virtual avatars by body scanning six models to virtually test the engineered garments using Optitex.

#### STUDENTS' EXPERIENCE:

*"It was relearning some technical designs that were used in previous classes and learning new ones too. Now that I see how Optitex works and have a tiny bit of knowledge about it I want to further explore this program and all the technical skills that were taught throughout the class."*

Having developed a concept board, the students created an engineered surface textile design, including simulations of camouflaged or non-camouflaged wrinkles. Once they determined the location of the garment's naturally occurring wrinkles, they developed, printed, sewed and fitted the student models with the muslin garment pattern. The final, full-sized garment pattern pieces also included simulated wrinkled or ruched surface designs.

Before the full-size garment fabric patterns were sent for fabric printing, the students virtually tested them in the Optitex 3D Product Creation Suite. This allowed them to check that their print placements were correct before sending the patterns to be printed and constructed.





We spoke to Lynn Boorady, Chair of the Fashion and Textile Technology department at SUNY – Buffalo State, about the role that 2D and 3D development software played in the Strategic Illusions teaching project.

**1. Why Was It Important To Integrate 3D Simulation Software In The Project?**

We want our students to be on the cutting edge of technology, to understand the possibilities that are already developed and in use. This way they can bring their knowledge to the companies which hire them and help integrate technology in the industry.

**2. Do you incorporate the use of technology into your curriculum outside of specialty projects?**

Absolutely! Our students start taking CAD courses their first year and increase their knowledge every year as we introduce new software and different technology. We have a 3D body scanner and use a number of different software programs – not only Optitex, but NedGraphics, Artlandia, Adobe Illustrator and Photoshop. We hold classes using different software in textile design, pattern making and garment design.

**3. What impact did the software have on the students' experience and on the Strategic Illusions project as a whole?**

The software was integral to this project. While we usually encourage our students to develop all over prints for their portfolio, this allowed the students to learn a new application – engineered printing. We also used the 3D imaging in Optitex to ensure the wrinkles were placed in the locations of naturally occurring wrinkles to ensure we were accurately embracing the wrinkles as per the design brief.

**4. What future projects are you planning that involve 2D and 3D development software?**

Our senior level students use this technology for their final collections – all of their models are body scanned and the scans are imported into Optitex in order to develop patterns and conduct the first fitting. We have found that this reduces the number of times the model has to be present for fittings and allows the design students to continue working on their pattern making without having to stop and wait for the model to come in.



**5. SUNY – Buffalo State is relatively advanced in integrating 2D and 3D garment simulation into its fashion design curriculum. What has driven you to take this direction, and where do you see it heading in the coming years?**

Elaine Polvinen, a professor here in the department, was the driving force behind all our technology. She was an early adopter of technology in fashion and has a knack for learning it and implementing it quickly. Many of her students have been highly successful in their careers because of her attention to technology and her implementing it in the classrooms early on. We continue to embrace technology and have partnered with our Engineering department to utilize their laser cutter and 3D printing machines. We want our students to remain cutting edge with their knowledge. Who knows what the future will bring?

**6. How do you imagine 3D technology evolving? And how it will affect the fashion industry?**

I think 3D technology will be in our homes at some point – the consumer will be able to scan themselves, upload the data to a computer and virtually try on garments. Perhaps they will be able to custom-create a dress with shorter/longer sleeves or a different skirt style to better suit their body type. Or tweak the fit. This will mean companies will have to be more nimble and instead of pushing product, the customer will be telling them exactly what they want.

**7. What do you see as the most important capabilities and skill-sets that students today need in order to excel?**

The basics are still the basics – students need to have good work ethics and be professional. However, once they embrace the basics, a solid understanding of the fashion industry and willingness to think outside the box are the next two things I believe are most important. All industries are changing constantly and we must train our students to accept and embrace the change, perhaps even implement change with their own new ideas. Technology helps this goal by giving them the tools to stimulate their creativity and allow them to explore different possibilities

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## ABOUT OPTITEX

Optitex empowers apparel and soft goods companies to revolutionize the way they develop, produce, and market their products. Optitex is the world's leading provider of an integrated 2D/3D software platform that enables customers to quickly create true-to-life 3D digital garments that inspire. Brands, retailers, and manufacturers can now view their collections in all styles and colors months earlier, and leverage digital garments to collaborate, market, and sell better than ever before. Since its founding in 1988, Optitex has worked to keep thousands of companies and tens of thousands of users at the forefront of technology, enabling them to greatly reduce their time to market and costs, and increase their competitive advantage.