University of the Sunshine Coast
Case study – Tertiary Education

Challenge

Design technology-enabled, collaborative learning and simulation spaces that are highly engaging and interactive to enhance student experiences and education.

Solution

Enable a flipped learning model, using Crestron technologies, that encourages students to actively engage with course materials and gain hands-on knowledge.

The University of the Sunshine Coast

The University of the Sunshine Coast (USC) is a public university founded in 1994 on Queensland's Sunshine Coast, offering 12,000 students a high quality educational experience with a focus on practical learning. Students benefit from a relaxed and supportive campus environment, with access to highly qualified teaching staff, as well as modern technology and facilities across all four of its campuses.

Creating learning environments of the future

According to The University of the Sunshine Coast's AV Team Leader, Scott Dukeson, universities are always trying to create training environments that are as realistic as possible, to stimulate learning and better equip students for the workforce.

The University was driven to make the switch to digital and collaborative spaces in 2014 after being awarded a government grant worth $30 million, as part of its Collaborative Futures program. "We were getting a lot more requests for a digital connection, and we knew that the analogue days were on their way out with the rise of mobile technologies and increasing demand for network access," explained Mr Dukeson. "We wanted to modernise our learning spaces, while also minimising technological disruption, and it was a fantastic achievement to be selected for the government grant."
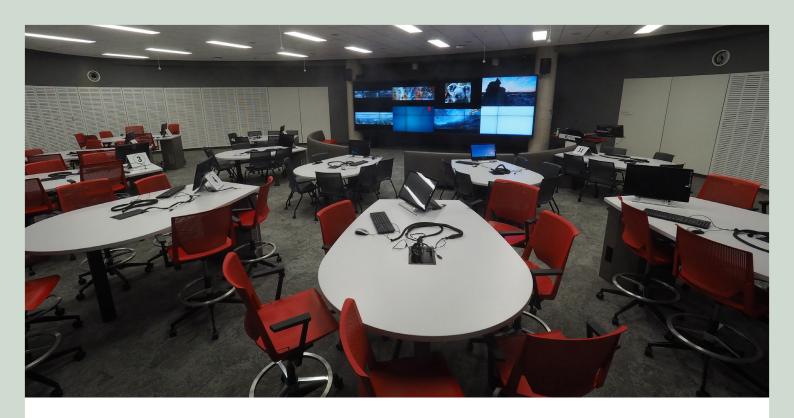

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"Crestron's products were the most robust at the time," said Dukeson. "We wanted to work with a vendor who could implement a next-generation workplace technology solution, fast. Compared to other competitors, it was obvious that Crestron was already established in the digital domain."

The whole project, from purchase order to delivery took three months in total. Crestron worked with multiple partners to deliver an award-winning solution. Specialists in control system programming, Control Gadgets, were heavily involved in the project configuration, while the team at Programmed Electrical assisted with the system install and integration. Finally, consultants from InDesign Technologies worked closely with the Crestron team to design a highly tailored solution for the building.

"The entire team worked tirelessly to meet our tight timeframes, making sure we'd be up and running with the new technology on the first day of students' use. They were here until the early hours of the morning, ensuring everything was perfect," explained Dukeson. "That's something that we normally wouldn't see out of a vendor."

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Future Proofed

Reinventing practical learning

A major part of the project involved designing a highly reliable, future-proofed learning environment for nursing students to train and up-skill in real-life experiences. Together with partners, Crestron built a complex nursing simulation space, complete with 14 simulation zones, a six-bed ward, light sensors, cameras, as well as switching throughout the whole building and microphones. Video and audio feeds were integrated to allow teachers to monitor and assess performance live from a separate room.

"We run various scenarios that allow our nursing students to practice in a safe environment, skills they would use in real life. Students are also able to review, and even mark at different stages what they did or didn't do right," said Dukeson.

"The result was a solution that had strong programming flexibility, allowing IT to simply program different zones in a tailored fashion, and it wasn't complicated for the nursing staff and students to use," said Dukeson.

> A highly reliable, future-proofed learning environment for nursing students to train and up-skill in real-life experiences.

Taking learning to a new dimension

The USC the ability to program the rooms themselves.

Award-winning flipped classroom learning

Crestron's technology was also integrated into a collaborative lecture theatre, featuring 14 tables that support up to seven student devices. Students can work from their own devices, and academics are able to display work from two tables onto a lecture screen for comparison and analysis, at any time.

USC's collaborative lecture theatre won the Best Application of AV in Education with a budget under $500,000 category in the 2015 Audio Visual Industry Awards.

"It's a room designed around discussion style teaching," explained Dukeson. "It very much fits into the University's mentality where we are moving towards a flipped model of teaching."

USC has taken this concept of group learning further in a new collaboration space with a video wall, built into one of its lecture theatres. "It can be tiled in any way," said Dukeson. "We can have 14 or 15 sources up on one massive screen for students to view each other's work and it is touch-enabled to allow a deeper learning experience."

The University has also rolled out an automated Crestron lighting system, that provides total control of lighting. "We've used Crestron to control lighting in our main theatres. There are definite energy savings, particularly in minimising any costs associated with occupancy," said Dukeson.

Real-time monitoring and evidence-based decision-making

In order to manage its extensive network of 250 AV-connected rooms across four campuses, USC has deployed Crestron's Fusion technology to monitor all AV and lighting technology in real-time. The solution allows the team to make evidence-based decisions for new building updates or projects.

A generic code was also developed to manage Crestron's technology, giving USC the ability to program the rooms themselves, and not over-invest in resources. USC's nine technology staff are empowered to change and adjust systems, and have greater control through better visibility.

"It is challenging to monitor and manage all of those venues, especially considering how much we have grown in the past few years, with around a 60 per cent increase in AV venues," said Dukeson. "With Fusion and our generic code, we are able to pull more information from our rooms and dispatch support staff as soon as an issue arises or is pre-empted."

Becoming a university of international standing

"When we complete site tours or guests from other institutions visit, they always remark that our teaching spaces are of a very high quality. Crestron's technology really gives the University that wow factor, and allows our student to work with the latest technology," said Dukeson.

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