



Charles Sturt University

re-engineers education

A new engineering degree at Charles Sturt University (CSU) is aiming to rethink the way engineers are educated.

The program is the newest engineering degree in Australia and was partly created due to the engineering skills shortage across Australia, particularly in regional areas.

"Once you get west of the Blue Mountains, you start to struggle a bit more to recruit engineers," said Euan Lindsay, director of CSU Engineering.

This prompted some in the community to question when a regional engineering program would be developed. But as Lindsay began creating the degree, he was conscious of not replicating existing engineering programs and just transplanting them to a regional location. Instead, he wanted the program to equip students with the crucial skills they would need in the industry – in particular, on-the-job skills.

To do this, Charles Sturt University has focused on students working while they complete their degree. Instead of spending most of their time in classrooms and lecture theatres, students will spend their first 18 months in face-to-face learning at the Bathurst campus. From the middle of their second year, they will then participate in four yearlong paid work placements and complete online study.

A new \$15 million building replicates an engineering workplace.

"We saw that there was a gap in the offerings of Australian engineering universities, and that's the gap that we've decided to focus on with our vision," Lindsay said.

"This is a response to a growing trend away from industry exposure. It's a way for us to address that workplace skills shortage even quicker. It's also grounded in a belief that engineering practice requires practice."

Lindsay said this type of on-the-job training is already occurring in some organisations, such as hiring high school graduates and supporting their university education, but a dedicated program doing this has not existed.

"Certainly, if you look at other universities that have co-op programs, once you get them back from the industry, they're totally changed and have a very different mindset on the value of their work. So we wanted to start with that as soon as we could," Lindsay said.

"If you're going to do this, it needs to be the centerpiece of what you're doing. You can't just tack this on as an add-on. You need to build your program around it and it needs to be a central pillar of what you're doing. If it's not already a central pillar, it's very hard to move to a place where it is."

The CSU Civil Engineering program will begin 29 February 2016.