Curriculum renewal at Curtin Kalgoorlie: An investigation into the impacts of embedding work-integrated learning into the mining and metallurgy disciplines within WASM: MECE

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# ABSTRACT

In late 2018, Curtin University commissioned the independent Foresight Review of the Western Australian School of Mines: Minerals, Energy and Chemical Engineering (WASM: MECE) Mining Engineering curriculum. The review was conducted against a background of declining enrolments in Mining Engineering programmes across much of Australia and the Western world, including at Curtin.

A key recommendation of this review was that WASM: MECE should:

“Work with the resources sector to develop and implement a renewed curriculum that reflects the needs of the resources sector of the future and the new skills required, while maintaining the important core graduate attributes that define each discipline and the requirements of accreditation bodies (i.e., Engineers Australia)”.

In 2020, WASM: MECE commenced staged implementation of renewed mining and metallurgy curricula with the updated courses now including work-integrated learning (WIL), a pedagogical practice designed to provide students with diverse experiences that help them: 1) understand how their theoretical knowledge applies in the real world; 2) gain much needed industry experience, and; 3) prepare them for their future as mining and metallurgical professionals.

At the operational level, the role of Industry Liaison Coordinator (ILC) was also established to develop and embed the WIL program, including site visit coordination and other industry-focused learning experiences. Furthermore, the ILC routinely communicates with stakeholders to gather feedback so that WASM: MECE can identify areas of strength and weakness and explore opportunities to ensure activities remain vibrant, engaging and value-adding for all involved.

To date, feedback has mainly been sourced anecdotally; however, WASM: MECE is now collecting data in a systematic manner, from multiple stakeholders using a mixed methods research design (adopting both quantitative and qualitative methodologies) so that the full impacts of changes can be measured. This paper will provide an update on the progress of establishing and commencing this investigation.