

Foundations of Mine Closure and Sustainable Transitions micro-credential

The University of Queensland (UQ) and Curtin University (CU) partnered with CRC TiME to co-develop a new micro-credential on 'The Foundations of Mine Closure and Sustainable Transitions'. The project has developed a foundational course that will enable training of those involved in mine closure from the multiple perspectives of those impacted by mine closure. These professionals could be within the mining industry, within suppliers to the industry or government and non-government organisations. The course will also provide an opportunity for other interested learners to understand the complexities surrounding mine closure and post-mining land utilisation and establish a foundation for enhancing the capabilities of all stakeholders involved in the process.

The Foundations of Mine Closure and Sustainable Transitions is a standalone credential accredited through existing edX protocols. It responds to the themes developed in consultation with CRC TiME and its partners. The volume of learning represented by the course content (including assessment) is 50-60 hours, approximating one unit of study at a university level, allowing for future stacking towards an award program of study at institutions. The material is available through a Creative Commons license to encourage uptake and use in other applications.



THE CHALLENGE

In developing the micro-credential, the challenges were:

- To develop flexible learning materials that suit a range of learners, providing them with options to engage with the material in diverse ways (e.g., as an opportunity to develop and enhance skills or as a steppingstone into other recognized accreditation pathways, such as through an industry body or tertiary institution).
- To offer the content to the broadest possible audience. EdX, the platform hosting the content, has global reach and allows learners to enrol in the course for free (audit) or to pay a small fee to access additional materials, including assessment, and be eligible to earn a verified certificate.

THE OPPORTUNITY

As mining matures worldwide, the need for professionals with the skills to engage with the many dimensions and impacts of mine closure on many stakeholders is accelerating. Closure practitioners typically move into the closure arena from other parts of the mining industry, other professions, or parts of government. This resource provides essential knowledge on closure with a focus on critical gaps, including governance and

social and cultural dimensions, to address what closure means for various stakeholders (which can include government, regulators, and community representatives of varying types).

THE APPROACH

Step 1. Working in consultation with the project Advisory Group to develop the learning goals, content structure and primary audience for the micro-credential.

Step 2. Working with a team of experienced learning designers, specialists in media production and graphic design as well as content experts to design the course and develop the content.

Step 3. Building the course materials in the online platform for review and beta testing with a select group of learners.

Step 4. The course is released as instructor-paced with the learning materials released on a fixed schedule over a defined period, allowing the course team to trial the content and quickly gather feedback from the learners.

Step 5. Refinement of the course materials based on review of learner feedback and platform analytics.

Step 6. Release of the course in self-paced mode on the edX platform.

KEY FINDINGS

- 406 learners joined the first instructor-led release of the course.
- Learners came from 33 countries around the world.
- Gaining knowledge and skills and career development were two of the main reasons for learners enrolling in the course.

OUTCOMES

Two surveys were launched; one preliminary before the course to gather anonymised data and a post-course survey to collect feedback and recommendations for improvement. Both surveys were given to the beta test group and the learners of the course. The feedback received from both groups was overwhelming. The beta testers provided valuable suggestions how to improve the course, while the learners gave an overall rating of 4.59 out of 5 and provided valuable insights and great comments on the structure, material, and interactivity of the course.

NEXT STEPS

The next phase involves the course's release on edX, marking a significant milestone in its availability to a global audience. This step is crucial for extending the course's reach and impact, facilitating through a well-orchestrated marketing strategy to broaden the participants' demographic. Emphasis is placed

on attracting non-industry participants, enriching the learning community with diverse perspectives and experiences.

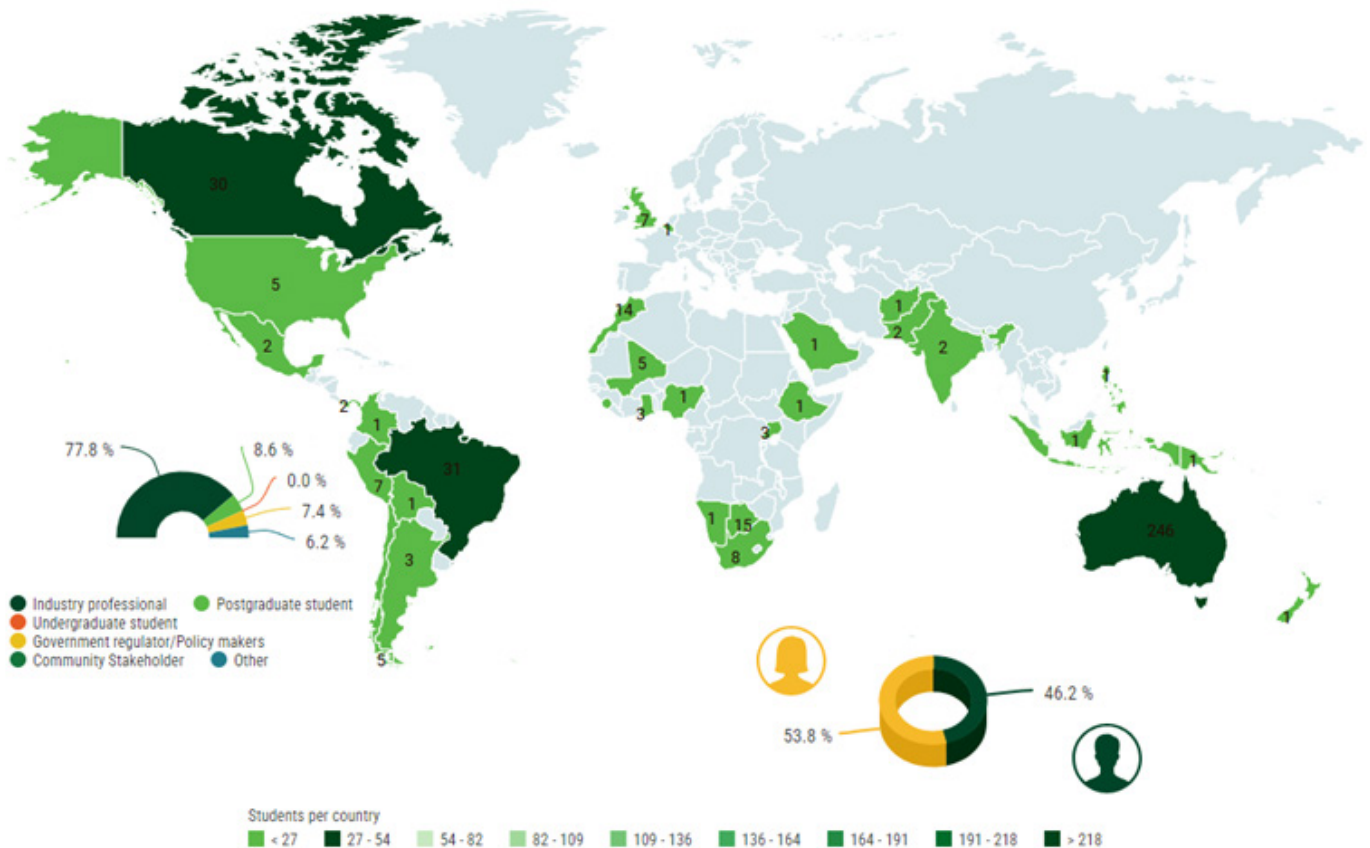
In the context of disseminating the development of this course and also to receive feedback, the project team has submitted an abstract (pending acceptance) to the 34th Annual General Meeting of the Society of Mining Professors (SOMP), which will take place in Sydney, Australia, from 5 to 11 September 2024.

KEY CONTACTS

- Rosemarie Tapia Rivera, UQ (Project Leader)
r.tapiarivera@uq.edu.au
- George Barakos, Curtin (Project Leader)
george.barakos@curtin.edu.au

PROJECT PARTNERS

The University of Queensland, Curtin University



ABOUT US

The Cooperative Research Centre for Transformations in Mining Economies (CRC TIME) brings together over 70 leading mining and mining service companies, regional development organisations, State and Commonwealth governments, research partners, community and indigenous groups. Our unique coalition brings scale and coordinated investment into innovative research that addresses the complex challenges underpinning mine closure and relinquishment.

We acknowledge the traditional custodians across all the lands on which we live and work, and we pay our respects to Elders both past and present.