



UWA Plus Micro-credentials

Critical Information Summary

Title and brief description	<p>MINEM502 Basics of Tailings Geotechnics. An introductory level course aimed at professionals who are working in the field of tailings management but have had little or no formal training in the field. It is best suited to practising engineers, geoscientists, managers or people with significant experience in tailings in an oversight capacity and those wanting to gain knowledge on tailings management strategies.</p> <p>Participants will learn how particle size distributions are obtained and how they are used to classify geomaterials. This includes an introduction to the concepts of plasticity and links to mineralogy. Utilisation of phase diagrams for understanding key parameters such as void ratio are described and the core concept of effective stress and its link to shear strength are discussed.</p>
Certified learning	<p>(1) compare tailings characterisation using the USCS and the ICOLD systems, and account for clay mineralogy; (2) demonstrate ability to determine parameters related to solids content and degree of saturation and the relevance of these parameters to engineering characteristics; (3) calculate variations in both vertical and horizontal effective stress for typical TSF scenarios; and (4) demonstrate the ability to link effective stress and shear strength, under both drained and undrained loading conditions.</p>
How learner participated	Online only
Effort required (indicative)	50 hours, including online contact hours, personal study time and assessment.
Main assessment task	Application of multiple skills to complex problems
Indicative equivalent level	Postgraduate
Quality assurance	This micro-credential has been developed through the Future Tails Research Collaboration and Funding Agreement with Rio Tinto and BHP.
Successful learner earns PD Points for conversion to:	2
. Admission to an award course	No
. Credit towards an award course	Yes
. If yes, how much credit?	Credit is less than one unit
