

UWA Plus Micro-credentials

Critical Information Summary

Title and brief description	<p>MINEM502 Basics of Tailings Geotechnics is aimed at professionals who are working in the field of tailings management. It is best suited to practicing engineers, geoscientists or people with significant experience in tailings in an oversight capacity and those wanting to gain knowledge on tailings management strategies. 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> <p>It is highly recommended that students take micro-credential MINEM501 Preparation, Transport and Deposition of Tailings prior to taking the Basics of Tailings Geotechnics.</p>
Certified learning	<ol style="list-style-type: none"> 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, void ratio and degree of saturation and the relevance of these parameters to engineering characteristics. 3. Account for salinity in calculations of void ratio, water content and related variables. 4. Calculate variations in vertical effective stress for typical TSF scenarios.
How learner participated	Online only
Effort required (indicative)	50 hours (including content hours, personal study time and assessments)
Main assessment task	Application of a skill to a complex problem
Indicative equivalent level	Masters

Quality assurance	The University of Western Australia
Successful learner earns PD Points for conversion to:	2
<ul style="list-style-type: none"> Admission to an award course 	No
<ul style="list-style-type: none"> Credit towards an award course 	Yes Stackable with additional micro-credentials. Students may apply for the Graduate Certificate in Tailings Management* after successfully completing the twelve micro-credentials and associated assessments.
<ul style="list-style-type: none"> If yes, how much credit? 	Credit is less than one unit

*In order to apply for the Graduate Certificate award you must have a Bachelor of Engineering degree or a degree in a related field and have met UWA's English language competency requirements. Please refer to the [Graduate Certificate in Tailings Management](#) for further information.