

Tailings Management

PROFESSIONAL CERTIFICATE



Manage risk. Ensure compliance. Build safer tailings management systems.

Course overview

Develop a comprehensive understanding of tailings management across technical, environmental, and social dimensions.

This 8-week online course, developed in collaboration with leading industry experts, delves into geotechnical, geochemical, governance, closure, and socio-economic considerations of tailings management. Participants will explore principles, strategies, and best practices through interactive modules, real-world case studies, and expert-led discussions.

- Learn from industry experts
- Flexible online delivery
- Digital badge on completion

Why this course matters

Effective tailings management is critical to environmental protection, regulatory compliance, and community trust. This course is designed to:

- · Clarify the complexities of tailings storage and disposal
- · Enhance risk assessment and mitigation strategies
- · Support sustainable closure planning
- Strengthen stakeholder engagement and governance practices

Who should enrol?

AusIMM Courses are open to all, with no formal prerequisites; however, this course is ideally suited to professionals involved in or responsible for tailings management, including:

- · Tailings engineers, managers, and operators
- · Environmental and geotechnical consultants
- Mining company executives and technical personnel
- Regulators and policy makers
- · Community and stakeholder engagement professionals



PD hours 40 hours



Delivery 100% online



Duration 8 weeks



CertificateDigital credential

Pricing

Member A\$2,830 Non-member A\$3,700

Prices are in Australian dollars and are inclusive of 10% GST

Discounts available when 3 or more participants book together.

Scan for more information

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What you'll learn

Gain practical knowledge and skills in:

- · Key elements and global variations in tailings management
- Geotechnical causes of tailings dam failures and risk assessment methods
- · Geochemical characteristics of tailings and water balance considerations
- · Governance frameworks, monitoring techniques, and emergency response planning
- · Closure challenges, residual risk management, and post-mining land use
- · Socio-economic impacts, community engagement, and sustainable practices

Career outcomes

- · Advance into leadership roles in tailings and waste management
- · Enhance your ability to develop and implement comprehensive tailings strategies
- · Increase your value in multidisciplinary teams focused on sustainability and compliance

Organisational benefits

- · Improve safety and environmental performance of tailings facilities
- · Ensure compliance with international standards and regulations
- · Reduce operational risks and potential liabilities
- · Foster community trust and social license to operate

Secure your tailings future

Poorly managed tailings facilities pose significant risks. This course equips professionals with the knowledge and tools to manage tailings responsibly, ensuring long-term stability and community confidence.

Don't let gaps in tailings knowledge compromise your operations. Upskill yourself or your team with a course that delivers clarity, confidence, and career advancement.

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Facilitators

See full facilitator profiles on our course page.



Professor David Williams Emeritus Professor of Geotechnical Engineering, The University of Queensland and Private Consultant



Peter Chapman Principal Tailings Engineer, WSP



Angelica Andrade MPhil Candidate, The University of Queensland



Laurie Reemeyer Principal Consultant, Resourceful Paths



Eduardo Salfate Principal Mine Waste Closure Consultant, WSP



Tailings Management modules

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Introduction to Tailings Management

- 1. Describe the key elements of tailings management
- 2. Explain the variations in tailings management globally
- 3. Describe the cause(s) and impact(s) of tailings dam failures
- 4. Discuss some opportunities for improvement to tailings management

Geotechnical considerations

- 1. Identify the key geotechnical causes of tailings dam failures
- 2. Explain tailings risk assessment methods and risk acceptability
- 3. Explain tailings dam/storage design
- 4. Discuss the key tailings geotechnical parameters
- 5. Explain construction and operation to ensure compliance with the design intent

Geochemical and water considerations

- 1. Explain the geochemical nature of tailings
- 2. Identify the potential for contamination from tailings
- 3. Understand the tailings water balance
- 4. Describe the management of potentially contaminating tailings

Governance and surveillance

- 1. Interpret multi-stakeholder governance
- 2. Discuss regional and global guidelines
- 3. Examine tailings management regulations
- 4. Interpret corporate governance
- 5. Discuss types of monitoring
- 6. Explain links to triggers and emergency response
- 7. Discuss frequency of monitoring and analysis

Tailings management for closure

- 1. Explain residual risk and tailings closure opportunities
- 2. Discuss closure challenges for tailings storage facilities
- 3. Explain capping and revegetation of tailings
- 4. Discuss learnings from tailings closure case studies

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Socio-economic considerations

- 1. Discuss financial and social license to operate
- 2. Explain why communities matter in tailings management
- 3. Understand sustainable tailings management
- 4. Explain effective tailings stewardship
- 5. Discuss net present value versus whole-of-life accounting
- 6. Discuss post-mining land use and ecological function