COURSE

Filtered Tailings: Past, Present and Future

Advancing sustainability with filtered tailings solutions

IN PERSON EDITION

SEPTEMBER 2ND 2025

9:00 - 18:00 hrs.

Hotel Sheraton
Santiago, Chile

Tailings 2025

COURSE ORGANIZED BY

TAILINGS CENTER

COLORADO SCHOOL OF MINES
THE UNIVERSITY OF ARIZONA
Colorado State University

GECAMIN

COURSE

Filtered Tailings: Past, Present and Future

Introduction

This course is designed to provide participants with a deep and up-to-date understanding of the world of filtered tailings, covering everything from technical aspects to the challenges of large-scale implementation.

Throughout four modules, lessons learned from case studies and crucial technical factors for successful tailings management will be addressed. Additionally, key aspects such as geotechnics, transportation, and stacking of filtered tailings will be analyzed, along with environmental and closure considerations, with a special focus on the Peruvian context.

The course will also encourage discussion on the opportunities and barriers to adopting large-scale filtered tailings technologies, preparing professionals to tackle the challenges of this emerging trend in mining.

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Syllabus

MODULE 1: Introduction and General Overview

- **Safety Share, Introductions, Learning Objectives:**
  Presentation of safety guidelines, participant introductions, and establishment of the course's learning objectives.
- **Difficulties in Filtered Tailings:**
  Exploring and addressing common challenges associated with filtered tailings.
- **Landscape Review:**
  Review of the current landscape of the filtered tailings industry, including advances and trends.

MODULE 2: Key Factors and Lessons Learned

- Understanding Drivers, Evaluation Factors, and Geotechnics: Geotechnical aspects of filtered tailings.
- Case Studies – Success Stories & Failures.
- Discussion about Filtered Tailings in the Context of Peru.

MODULE 3: Technical Overview

- Technical Overview - Process.
- Technical Overview – Transport and Stacking.
- Technical Overview – Environmental and Closure.

MODULE 4: The Future of Filtered Tailings

- Exploration of the Possibilities and Challenges of Large-Scale
- Implementation of Filtered Tailings Technologies.
- Discussion about Challenges and Opportunities for Expanding Uptake of Filtered
- Tailings Technology.
- Concluding Remarks: Final reflections on the topics covered and next steps to consider.
- Adoption process of this technology regarding common barriers to its implementation.

Instructors

Kim Morrison

Global Expert in ESG practices
and Tailings Management
MORRISON SOLUTIONS

Kim has over 26 years of experience and is a globally recognized leader and technical expert in the resource development and mining industry, particularly in the area of ESG. From 2019 to 2024, Kim served as the global leader for tailings, dams, and heap leaching at Newmont's corporate headquarters in Denver, Colorado, where she was responsible for overseeing this critical infrastructure, including the company's implementation of the Global Industry Standard on Tailings Management. She also chaired the GeoStable Tailings Consortium Steering Committee, which brought together ten global mining companies to study options for combining tailings and waste rock to create "geo-stable" landforms. Her previous experience is primarily in geotechnical and environmental consulting.

Recently, she returned to Morrison Solutions, where she serves as an advisor and subject matter expert, supporting clients with tailings, mine waste, water management, and other environmental concerns.

Kim has authored or co-authored over 40 technical publications. Most notably, she served as the managing editor of the Tailings Management Handbook: A Lifecycle Approach, published by the Society for Mining, Metallurgy, and Exploration (SME). In 2020, Kim was named one of the 100 Global Inspirational Women in Mining (WIM100) and received SME's Individual Citation Award for her significant contributions and leadership in the mining industry. In 2022, she was awarded the Environmental Management Distinguished Service Award from the American Institute of Mining, Metallurgy, and Petroleum Engineers (AIME) and was featured in a temporary museum exhibit, Trailblazers in the Field: Women in Mining. In 2023, she received the Jerry R. Bayless Distinguished Alumni Merit Award from the Missouri University of Science and Technology, and in 2024, she was selected to receive the SME Honorary Member designation, Class of 2024.

Instructors

Joe Scalia

Associate Professor, Civil and Environmental Engineering

COLORADO STATE UNIVERSITY

Dr. Joe Scalia is an Associate Professor in the Department of Civil and Environmental Engineering at Colorado State University in Fort Collins, specializing in geoenvironmental engineering. He is currently the co-chair of the 2024 Tailings and Mine Waste conference in Denver, Colorado, and the 4th International Symposium on Coupled Phenomena in Environmental Geotechnics TC215 of the International Society for Soil Mechanics and Geotechnical Engineering in 2025. He also serves as the Director of the CSU Site of the Tailings Center, a consortium between industry and academia focused on tailings education, and is the Principal Investigator of the University Consortium for Field Research in Groundwater. In addition, he chairs the Filtered Tailings Working Group of the Tailings Committee of the Society for Mining, Metallurgy, and Exploration (SME).

His research team focuses on areas such as tailings and mine waste (covers and liners, filtered tailings, combined tailings, unsaturated behavior, coupled hydrogeochemical processes, sensor-based monitoring, and education), groundwater management (contaminant transport, barrier systems, and sensor-based monitoring), and geo-hydrotechnics, including coupled processes and unsaturated soil mechanics. Before joining CSU, Dr. Scalia was a Senior Associate in the Environmental and Earth Sciences Practice at Exponent.

Instructors

Jorge Macedo

Jorge Macedo, Ph.D., P.E., is an Associate Professor in the School of Civil and Environmental Engineering at the Georgia Institute of Technology, where he joined the faculty in 2018 after receiving M.S. and PhD degrees at UC Berkeley in Geoengineering. Dr. Macedo has also practiced as a geotechnical tailings engineer for seventeen years, working as a consultant on major mining projects in Peru, Argentina, Chile, and Brazil from conception to detailed engineering design, and he holds P.E. licenses in California and Peru. Dr. Macedo's main research areas are mining geotechnics, geotechnical earthquake engineering, and data-driven AI-informed risk engineering applied to multi-hazards. He has received several research and teaching awards, including the prestigious 2022 United States National Science Foundation CAREER award for his work at the convergence of tailings geotechnics and data science and the 2023 Young Investigator Award from the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) for his work at the confluence of Earthquake Engineering and data science. Dr. Macedo's technical publications have also been showcased as "Editor's Choice" in prestigious Scientific Journals. Dr. Macedo is the founder and chair of the TAILENG (TAilings and IndustriaL waste ENGineering) center, which works to improve the resilience of infrastructure in the mining and power industries.

The course is aimed at professionals in the areas of geotechnics, environment, processes, and project management, as well as technical leaders involved in tailings management. It is also ideal for mining industry consultants, researchers interested in innovative tailings technologies, and engineers responsible for applying large-scale filtered tailings technologies.

Course Details

Catering service: coffee breaks and lunch.

Certificate of participation signed by the instructors.

Maximum 120 participants.

Delivery of materials in PDF format.

Simultaneous interpretation from English to Spanish.

Professional Networking.

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More Information

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REGISTRATION FEE	
USD 490 for those not registered for the Tailings 2025 Congress.	**USD 390** **(20% discount)** for those registered for the Tailings 2025 Congress.

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