



Professional development for the minerals and resources sector

The University of Queensland's Sustainable Minerals Institute (SMI) leads the world in multidisciplinary research focused on addressing the sustainability challenges in the resources sector.

Our researchers work across the life-of-mine and beyond, offering expertise in exploration, mining, mineral processing, workplace health, safety and risk, environmental and water management, social responsibility, cultural heritage management, leadership and governance.

In addition to delivering research, SMI delivers high-impact professional development programs that build capability across industry, government and civil society.

SMI's courses and masterclasses are grounded in cutting-edge research and developed by leading academics and industry experts. They are designed to be practical, interactive and immediately applicable to real-world challenges.

SMI works with government, industry and civil society organisations in Latin America, Europe, Africa, Asia and Australia to deliver:

- Public courses
- Train-the-trainer programs
- Bespoke training to meet specific organisational goals and needs.

SMI at a glance



Strong track record

- 70+ courses delivered in seven countries in 2024.
- Trusted by Tier 1 mining companies, government agencies and civil society organisations.
- High rates of repeat business from organisations.
- SMI training is embedded in internal programs of several major organisations.



Global reach and partnerships

- Working with the Australian Department of Education to support training in Latin America.
- Developed and manage the training at the South Gobi Underground Mass Mining Institute (SGUMMI), based at the Oyu Tolgoi mine in Mongolia.
- Multilingual delivery across several courses.



World-class expertise

- Training delivered by experts from a university consistently ranked in the world's top 5 for mining and minerals research.

Themes



Health, safety and risk management

Embedding leading risk and health and safety management systems that integrate critical controls, layered risk management, psychosocial risk management, and effective incident investigation to drive improved outcomes and fatality prevention.



Social responsibility in the resources sector

Enabling teams to develop new knowledge, explore innovative concepts and practices, and unpack complex sustainability scenarios.



Mine site environmental management

Providing professionals with the technical skills necessary to implement best practice water management on mine sites.



Geometallurgy and process innovation

Helping industry address critical mining and mineral processing challenges.



Foundation courses

Online publicly available courses on the legacies and challenges of modern mining.



Customised in-house training solutions

Delivering a range of professional development options for the resources sector to increase specialist knowledge and skills aligned with organisational goals.



Professional development courses

SMI courses are delivered online and in-person, with several available in both Spanish and English. Please see the [website](#) for upcoming courses and attendance options.

Topic area	Course options
Health safety and risk	• G3: GMIRM Risk Management Systems for Managers • G7: Mine Occupational Health and Safety Management • G2: Risk Management for Supervisors • Bowtie Facilitation Workshop • Safety Investigation and Analysis Management • Safety Investigation for Supervisors • Process and Systems Safety Engineering • Risk and Critical Control Management • Advanced Data Analytics and AI Masterclass • Critical Risk Control Masterclass • Introduction to Human Factors and Human-Centred Design
Social responsibility in the resources sector	• Social Impact Assessment in the Extractives: Critical Perspectives • Community Relations at Exploration • Indigenous Cultural Heritage Management in the Australian Resources Sector • Dialogue for Community Engagement
Mine site environmental management	• Mine Water Fundamentals • Mine Water Systems • Soil, Erosion and Sediment Control, Tailings and Residue • Water Accounting for Mine Sites • Water Quality Assessment for Mine Sites • Introduction to Acid and Metalliferous Drainage
Geometallurgy and process innovation	• Flotation Chemistry Fundamentals • Metallurgical Sampling • Introduction to Geometallurgy • Process Control and Analytics (Basics and Advanced Courses) • Process Mineralogy • JKSimMet Training • JKSimFloat Training • JKMetSkill Training • Comparative Statistics and Experimental Design • Critical Mineral Processing • The Path to Net Zero: Carbon Emissions within the Mining Industry • Deep Mining Geoscience
Foundation courses	• Foundations of Mine Closure and Sustainable Transitions • Leadership and Diversity in Mining • Minerals and Mining in a Sustainable World • Health, Safety and Wellness in Mining

Participant feedback

I have had a number of valuable learnings during this course. The biggest takeaway has been (as a professional enviro moving more into the SIA space), to apply in my work flow a highly structured ethical framework and Theory of Change modelling during operational SIA (e.g. monitoring) work assignments. I highly recommended any environmental professional tasked with social performance during exploration/Life of Mine (including modifications to planning)/closure phases to complete the course.

Attendee, Social Impact Assessment in the Extractives: Critical Perspectives.

The knowledge and capabilities I have gained throughout the four days have been extensive and have given me the ability to go forth in my career journey. I am able to provide a better service and understanding to my current and future clients, and my internal team.

Attendee, G3: GMIRM Risk Management Systems.

The community relations course has allowed me to generate solid foundations for a sound community approach. Both the online content and the live session discussions have helped me build a genuine understanding. I would also highlight not only the knowledge but also the experience that each one of the course speakers brought to the course. It is very enjoyable and easy to follow, which I think reflects the work, experience, knowledge and effort that have gone into it.

Attendee, Community Relations at Exploration.

I came into the course feeling green and overwhelmed but left confident and knowledgeable in risk management systems and tools.

Attendee, G3: GMIRM Risk Management Systems and future clients, and my internal team.



Contact us

SMI Professional Development

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