

Diploma in Surface Mining Explosives Engineering

Introduction

The Institute of Quarrying (IQ), in collaboration with EPC Groupe and the University of Derby, have developed a diploma programme that focuses on enhancing professionalism, safety, and competence within the explosives products and services sector.

The programme consists of three modules:

- Geology, Surveying and Drilling Operations
- Explosives and Blasting Operations
- Safety, Health, Environment and Sustainability

Content

The programme aims to meet the current and future professional development needs of the explosives products and services sector by:

- Supporting the sector's drive towards improved public perception, total competence, continued improved professionalism and target zero accidents and fatalities
- Plays a major part in addressing the sector's demographic shortfall by the sustained introduction of a younger more diverse workforce
- Contributes to a balanced income and profit portfolio and strengthening links with major industries and employers across universities as a whole

Programme

Module 1 covers geology, geotechnics, rock properties, mine planning, surveying, software for blasting, various drilling methods, downstream benefits, and business ethics.

Module 2 explores explosive history and types, properties, detonators, initiation systems, usage techniques, blast design, shotfiring operations, and contracts involving rock on the ground.

Module 3 addresses legislative history and current laws in health, safety, and the environment. It includes best practices, training, competence, manager rules, environmental factors, contractor management, and sustainability.


Each module is split 50:50 between coursework and open book end assessment. Learners will complete two sets of assessments (pass mark 40%) along with an open book assessment (pass mark 40%) at the end of the study year.

Duration

Launching in 2024, the course lasts an approximate duration of 12 months.

Contact us

+44 (0)115 972 9995
mail@quarrying.org
www.quarrying.org

 The Institute of Quarrying,
National Stone Centre, Porter Lane,
Wirksworth, Matlock, DE5 5LS

**Learn.
Progress.
Succeed.**

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Delivery

Learning materials will be released through a scheduled programme (supported by relevant face-to-face and practical sessions).

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All assessments are carried out and completed online.

Looking to find out more?


To enquire or find out more information about the programme, visit quarrying.org/explosives

Learning outcomes

- ✓ Execute structured academic or professional research with appropriate methodologies
- ✓ Assess problem-solving approaches for workplace application
- ✓ Craft and assess written/verbal arguments, and generate ideas critically
- ✓ Plan projects to enhance the explosives sector practices including personal areas
- ✓ Apply practical skills in explosives production for mining industry compliance
- ✓ Adhere to explosives-related regulations for manufacturing, transport, and storage
- ✓ Collaborate, display teamwork, negotiation, and organisational skills
- ✓ Employability traits and skills for the explosives sector and future growth

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