



School of Minerals and Energy
Resources Engineering

Graduate Diploma in Mine Ventilation & Statutory Coal Mine Ventilation Officers Qualification

Introduction and Program Objectives

The Ventilation Officer Program was established in 1998 by the School of Mining Engineering at the request of the Chief Inspector of Mines.

The Graduate Diploma in Mine Ventilation was established in 2000. Since 2002 it has been offered in a flexible delivery format using conventional learning methods supported by an internet platform.

The Diploma is structured so that it can be tailored to the needs of either the metalliferous or coal mining sectors. The accredited programs offered by UNSW for the appointment of statutory Coal Mine Ventilation Officer's in both New South Wales and Queensland can be taken as an option in the Diploma or as a separate course of instruction.

The objectives of the course are to provide competency-based education and training in key aspects of underground environmental engineering. The course contents have been developed from standard texts, industry guidelines and case studies. These are delivered from both a theoretical and operational perspective with the aim that course contents will be immediately relevant to industry.

Coal Mine Ventilation Officer Only Qualification

The Coal Mine Ventilation Officer Program can be taken independently at lower cost and without enrolling for the Diploma. This option is suitable for candidates who require the Ventilation Officer qualification but do not wish to enrol for the Diploma.

Delivery Format

The delivery format is flexible and utilizes a mix of internet and conventional learning techniques. Based on [Moodle](#), it will be supported by:

- › Course notes
- › Learning guides
- › Online presentations
- › Tutorials and practical sessions
- › Reference books
- › Online interactive peer networked sessions



Program Eligibility

It is assumed that candidates have sufficient underground experience to understand mining terminology and appreciate operational issues associated with course contents.

A reasonable ability in mathematics and use of spreadsheets is required for participants to gain most from the course.

Access to a computer with internet access is essential. Candidates will need laptop computing facilities at tutorial sessions.

To Register an EOI, Application information and General Queries

E: mere.admin@unsw.edu.au

Program Details

Graduate Diploma Courses:

- [MINE9901 Ventilation and Mine Services](#)
- [MINE9902 Environmental Contaminants](#)
- [MINE9903 Heat in Underground Mines](#)
- [MINE9904 Ventilation System Management](#)
- [MINE9905 Coal Mine Hazard and Control](#)
- [MINE9920 Spontaneous Combustion and Reactive Ground](#)
- [MINE9921 Mine Ventilation Legislation](#)
- [MINE9922 Mine Ventilation Practices](#)

Ventilation Officer Courses:

- [MINE9901 Ventilation and Mine Services](#)
- [MINE9902 Environmental Contaminants](#)
- [MINE9905 Coal Mine Hazard and Control](#)
- [MINE9920 Spontaneous Combustion and Reactive Ground](#)

Tutorials

Three tutorial sessions are incorporated in the Program these include an Introduction and two Practical Sessions. Delivery mode and dates are TBC and will be subject to COVID restrictions. Students will be advised early in the year.

› Introduction

A one-week overview of the course, summary of each module and explanation of course work and examination requirements. MNNG9901 Ventilation and Mine Services will be covered in detail to ensure candidates have the underpinning knowledge and competencies for the remainder of the course.

Although this is an introductory session, it is strongly recommended that candidates attend.

› Practicals

Two one-week tutorials covering use of ventilation network simulation software together with laboratory and underground practical aspects of the course will be provided. These will also be used for revision and to monitor candidate's progress.

It is a compulsory requirement of the Program that, candidates wishing to obtain the statutory Ventilation Officer–Coal Qualification attend at least one of these practical sessions. The location and timing of practical sessions are subject to numbers and location of candidates.

Coursework and Examinations

Candidate's progress will be monitored by coursework and self-assessment tests provided for each module. This work will be completed according to a predetermined course schedule. Together with mine site assignments and laboratory sessions, it will form a significant part of the course marks and assessment.

There will also be final written examinations that will be undertaken at UNSW or, if necessary, a suitable establishment more accessible to candidates.

Assessment

The option exists to be assessed to National Competency Standards. This is compulsory for those wishing to satisfy the performance criteria and underpinning knowledge requirements agreed by the industry in Competency Unit RIIUND603A– Statutory Ventilation Officer – Coal.

Reference Books

Order from [UNSW Bookshop](#) or online:

- › Mine Ventilation and Air Conditioning (Grad Dip only)
- › Le Roux's Notes on Environmental Engineering
- › Mine Fires in Australian Underground Coal Mines
- › Spontaneous Combustion in Australian Underground Coal Mines



Program Convenor

Assoc. Prof. Roy Moreby

- › Consultant to the underground coal and metalliferous mining industries, with 25 years' experience.
- › Formerly Mine Official, Consolidated Gold Fields, South Africa
- › Ventilation Engineer, Carnon Consolidated, UK
- › Senior Ventilation Engineer – Pasmenco Mining, Australia
- › Ventilation and Gas Drainage Engineer – Shell Coal Australia

Course Presenters

› Assoc. Prof. Roy Moreby.

Adjunct Associate Professor, School of Minerals and Energy Resources Engineering, UNSW.

› Mr. Duncan Chalmers

Senior Lecturer, School of Minerals and Energy Resources Engineering, UNSW. Formerly Head Teacher, Mining, Illawarra Institute of Technology. Under manager in Charge.

› Dr Guangyao Si

Senior Lecturer, School of Minerals and Energy Resources Engineering, UNSW

› Select industry experts as required.

Awards

Successful Graduate Diploma candidates will receive a UNSW Graduate Diploma in Mine Ventilation. An academic transcript of courses completed will be made available.

Candidates completing requirements for the Statutory Ventilation Officer – Coal qualification (Diploma or Ventilation Officer only course); will receive an additional certificate to that effect.

Program Costs

Graduate Diploma
Local students approx.:
\$36,000 AUD*

Ventilation Officer–Coal only qualification approx.:
\$18, 000 AUD*

More information about fees can be found here:
<https://student.unsw.edu.au/fees>

* Excludes transport or accommodation costs associated with tutorial and examination attendance and the reference books.