



**Professional Development Courses**

## **2019 Programme**

For more information or to register, please contact:  
+ 61 8 9213 9213 or [training@snowdengroup.com](mailto:training@snowdengroup.com)

[www.snowdengroup.com](http://www.snowdengroup.com)

# **SNOWDEN**

## Geology Training Courses

### RESOURCE ESTIMATION

*A practical step by step guide - from data to resource.*

This 5-day course gives you a clear understanding of the resource estimation process from interpretation through to classification. Learn how to create a robust resource estimate using industry standard techniques.

*Each attendee will receive a FREE 3 month Supervisor software license.*

Mongolia	21-25 Jan   15-19 Apr 15-19 Jul   21-25 Oct
Perth	11-15 Mar   22-26 Jul 14-18 Oct
Vancouver	25 Feb-01 Mar

### ADVANCED RESOURCE ESTIMATION

This 5-day course is designed for those who want to increase their knowledge of resource estimation to the next level. This course takes a hands-on approach showing how and when to apply techniques such as co-kriging, multiple indicator kriging, conditional simulation and change of support. Participants will produce resource estimates in GSLIB using these techniques then compare and discuss the results.

*Each attendee will receive a FREE 3 month Supervisor software license.*

Vancouver	01-05 Apr
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### INTRODUCTION TO GEOSTATISTICS

*An introduction to the concepts and tools used in statistical & spatial analysis.*

This 1-day course uses clear practical activities to give you training in statistical analysis, spatial analysis/variography and an understanding of estimation techniques. Each aspect is examined using exercises and practical activities. This is an excellent course for managers, miners, engineers and geologists.

Mongolia	30 Jan   24 Apr 24 Jul   30 Oct
Perth	14 Feb   20 May 02 Sep
Vancouver	18 Mar

### SUCCESSFUL SAMPLING AND QAQC OF ASSAY DATA

*Guide to designing & running effective sampling programmes & best practice using practical guidelines for achieving high data quality.*

This 2-day course will teach you correct sampling practices, the sources of sampling error, to optimise your sampling protocol through the application of sampling theory, the principles of QAQC and the statistical tools to critically analyse QAQC data.

Vancouver	28-29 Jan
Perth	08-19 Feb   17-18 Jun 18-19 Nov
Mongolia	28-29 Jan   22-23 Apr 22-23 Jul   28-28 Oct

### MINE TO MILL - GRADE CONTROL AND MINE RECONCILIATION

This 3-day course teaches best practice grade control techniques for open pit and underground operations and how to ensure delivery of the best-quality-ore. You'll learn to minimise misclassification through best practice grade control and optimal estimation.

Perth	20-22 Feb   19-21 Jun 20-22 Nov
Vancouver	30 Jan-01 Feb

### REPORTING RESOURCES AND RESERVES

*Understanding the reporting codes (e.g. JORC/SAMREC).*

This 1-day course will teach you the legal requirements for public reporting, how to interpret and apply the relevant codes, how to review and assess public reports and how to check if a report is compliant.

Perth	13 Jun   24 Oct
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### PRACTICAL VARIOGRAPHY

*Practical and relevant advice for preparing and analysing variograms.*

This 1-day course will teach the fundamentals of spatial analysis. You will learn: how variograms are calculated and what they mean, how geology is reflected in variograms, how data quality and the geological model can impact the variogram, how to interpret and model variograms and how variograms impact the estimation process.

Perth	07 Mar   30 May 12 Sep
Vancouver	19 Mar

## Geology Training Courses

### PRACTICAL VARIOGRAPHY USING SUPERVISOR V8

*Adding value to analysis using Supervisor's acceleration features.*

This 1-day course gives you the skills to import data, calculate and model variograms using Supervisor V8 software modules Analysor and Visor, while working on your own data. You will learn how to get results up to 10 times faster using optimised algorithms to add value to analysis rather than spend valuable time on data and information management.

Perth

08 Mar | 31 May  
13 Sep

Vancouver

20 Mar

### MINING AND SAMPLING THEORY FOR MINE TECHNICIANS AND EXPLORATION FIELD ASSISTANTS

*Understanding the importance of best practice sampling and the impact of sampling errors.*

This 1-day course will give you an understanding of: the mine value chain from exploration through to production, what goes into making a mine, a review of exploration, resource definition and grade control sampling methods, splitting techniques and the practical aspects of sampling errors.

Perth

22 Mar | 02 Aug  
15 Nov

## Mining Engineering Training Courses

### MANAGING MINE CONTRACTS

*The principles behind successful drafting and management of mining industry contracts.*

This 2-day course will give you an understanding of different contract types and their structure, the tendering process, the principles of contract negotiation and management and dispute resolution.

Perth

11-12 Jun | 19-20 Sep

### OPEN PIT MINE PLANNING

*Understanding mine planning processes.*

This 2-day course presents basic open pit planning considerations; including technical design and optimisation to scheduling concept. You will gain: understanding of the mine planning process; from optimisation to scheduling, understanding of the challenge of optimising mine schedules and advice on open pit mine design.

Perth

10-11 Apr | 07-08 Aug  
06-07 Nov

### UNDERSTANDING THE DRILL AND BLAST PROCESS

*The mechanics of drill and blast design.*

This 1-day course explains the mechanics of drill and blast design, with a focus on the fundamental importance of effective blasting for mine economics. You will gain: an understanding of explosive and rockbreaking theory, an insight in correct explosive selection and safe blasting practices and the "mine to mill" blasting for best practice.

Perth

12 Apr | 09 Aug  
08 Nov

## General Training Courses

### MINING FOR EXECUTIVES, MANAGERS AND INVESTORS

*The mine cycle, planning process, feasibility studies and cost drivers behind successful mines.*

This 1-day course has been especially designed for executives and managers associated with or investing in the mining industry, those financing and investing in mining projects and those interpreting mine and exploration project valuations. The course explains the mining cycle for open pit and underground mines, the planning process, including feasibility studies and cost drivers behind successful mines.

Perth

07 Feb | 30 Jul  
12 Nov

### UNDERSTANDING PUBLIC REPORTS AND MINE PROJECT VALUATION TECHNIQUES

*For those financing and investing in projects and interpreting mine & exploration project valuations.*

This 1-day course will help you understand the reporting of resources and reserves under the JORC and other reporting codes and the techniques applied by Competent Persons in valuing mine and exploration projects.

Perth

18 Mar | 03 Sep

### MINING FINANCE FOR NON-FINANCE PROFESSIONALS

*An introduction to mining finance.*

This 1-day course is for people with non-financial backgrounds, who are involved in mining projects that would like to understand the principles of finance and how it relates specifically to mining and exploration. You will: gain an understanding of financial accounting foundations, a working understanding of financial modelling principals and why and how finance models represent mining operations.

Perth

06 Feb | 26 Jun  
9 Dec

### ADVANCED FINANCIAL MODELLING

This 1-day course has been designed for master/power-users in Excel-based cash flow modelling, aligned to the needs of the mining industry. The course covers technical and financial modelling from rock face to product, quick builds for auditable nominal and real models, multiple scenario modelling, methodologies for depreciation, stockpiles, closure cost funding, data tables (tornado plots sensitivity analysis) and some tricks of the trade.

This course is available as on-site/in-house, please contact [training@snowdengroup.com](mailto:training@snowdengroup.com).

### VALUATION OF MINERAL PROPERTY & PROJECTS

This 1-day course presents valuation methodologies and techniques applicable to perform relevant and accurate valuation of an organisation or project in the mining industry - for investment, acquisition, strategic planning, project implementation, interpretation and assessments.

This course is available as on-site/in-house, please contact [training@snowdengroup.com](mailto:training@snowdengroup.com).

### GEOLOGY FOR NON-GEOLOGISTS

*An introduction to geology, from early exploration to reporting of mineral resources.*

This 1-day course teaches key geology and resource estimation concepts about rock specimens and geological activities. How a company progresses a project from early-stage exploration through to a mining reserve, how to interpret mineral resource and exploration results in company announcements, find out what is involved behind the scenes, learn about the key risks to be managed using geological data.

Perth

04 Feb | 27 Jun  
10 Dec

## General Training Courses

### MINING FOR NON-MINERS

*An introduction to the mining cycle.*

This 1-day course explains the basic mining cycle for open pit and underground mines; planning process, including feasibility studies, and cost drivers behind successful mines. You will gain an understanding of the mining cycle, introduction to underground and open pit mining and an understanding of basic capital and operating costs.

Perth

05 Feb | 28 Jun  
11 Dec

### TECHNICAL REPORT WRITING

*An introduction to technical report writing for mining industry personnel.*

This 1-day course will teach you the fundamentals of report preparation, how to structure reports, how to develop and understand the role of peer review and how to present technical data effectively using charts and graphs. This course has been designed for geologists and mining engineers writing or editing technical reports.

Perth

29 Jul | 25 Oct

## Other training options available

### Technical Mentoring

#### OPTION 1: Distance-mentoring

You and the Snowden consultant are each in your own offices on your own computers. The distance-mentoring is “live” with you being able to talk to each other and see each other’s computer screens.

The Snowden consultant:

- Will guide you to use due process while you work on your data.
- Can view live displays of your computer screen while you work.
- Can show you live displays and examples on their computer screen.
- Can give you a live review while you work.

There are no travel or accommodation costs and the mentoring is charged per contact hour. You only pay for the time our consultant is working with you - you do not pay for the time that you are working on your own.

#### OPTION 2: Mentoring at a Snowden office

Snowden supplies an office for you to work in. You bring your own laptop, software and the data you would like to work on.

- You only pay per contact-hour of mentoring.
- You only pay for the hours that you request the consultant to guide you.
- This helps you control your budget and allows you to have guidance over an extended period.

#### OPTION 3: Mentoring at your office/site

The Snowden consultant mentors you, at your office/site, while you work on your data. This is charged as a full-day of on-site mentoring.

### On-site customised courses

All our courses can be customised to suit your specific training requirements and presented either on-site or at a venue of your choice. The client needs to cover the consultant’s travel and accommodation costs, and supply a suitable room for the mentoring.

Please contact [training@snowdengroup.com](mailto:training@snowdengroup.com) for further information.

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