GEOVIA Surpac™ Geology Tools (5 days)

The GEOVIA Surpac™ Geology Tools course is a course designed for exists users of Surpac. It focuses on geological concepts and processes within the software. The course provides users with an understanding of modeling methods that can be applied by geologists in their everyday work.

COURSE PREREQUISITES

- Knowledge of file management
- Knowledge of ASCII format files and Microsoft® Excel®
- Knowledge of geological science
- Good understanding of basic Surpac concepts and functionality including:
    - o Understand the fundamental concepts of the software
    - o Use the available visualization and CAD tools to import, create, edit and display data
    - o Create points, lines, surfaces and simple solids
    - o Creating standard orthogonal section planes
    - o Use data mathematical manipulation tools

EXPECTED OUTCOMES

Upon completion of this course, users will:

- Understand data types and concepts involved in geological modelling tasks
- Create and manage geological drillhole databases
- Import, analyze and report information from geological drillhole databases
- Display and interact with drillhole databases
- Perform simple grade calculations from polygons
- Surface contour using gridding
- Basic data analysis
- Create composites
- Interpret data on section to model effectively
- Create, validate, edit and manipulate solids
- Create, import/export, populate and report block models
- Basic resource estimation

If a desired expected outcome is not listed above please contact GEOVIA Training for a detailed list of course deliverables and to discuss tailored training

COURSE STRUCTURE FLOW

Concepts	Topics
Geological database	Database concepts
	Importing data
	Mapping a database
	Auditing the database
Displaying drillholes	Creating styles for drillholes (summary)

	Constraining drillhole displays (summary)
	Drillhole manipulation
	Drillhole interrogation
Database reporting	Overview of database reporting functions
Extracting data	Extracting sample data
Surface contouring functions	Surface contouring functions (Grid)
Basic statistics	Basic statistics
Compositing	Compositing concepts
	Creating composites different types
Data sectioning and planes	Creating different type of section planes
	Section grade calculation
Geological model digitizing	Digitizing on sections and plan
	Preparing strings for triangulation
Solids modelling	Creating and editing solids (summary)
	Solids repair (automatic and manual)
	Solid merge/intersect/clip
	Creation of complex solids
	Manipulation of surfaces
	Solid sections
	Drillhole DTM intersection
Fault modelling	Fault modelling functions

Block model setup	Block modelling concepts
	Creating a block model
	Creating attributes
	Creating/applying constraints (advanced)
	Editing blocks
Estimation	Brief introduction to estimation theory
	Assigning values
	Nearest neighbor estimation
	Inverse distance estimation
Block modelling tools	Partial percentages
	Block model sections
	Block model import/export
	Reblocking
Block model report	Resource report creation
Open session	Open discussion and Q&A session
Exam	Exam

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