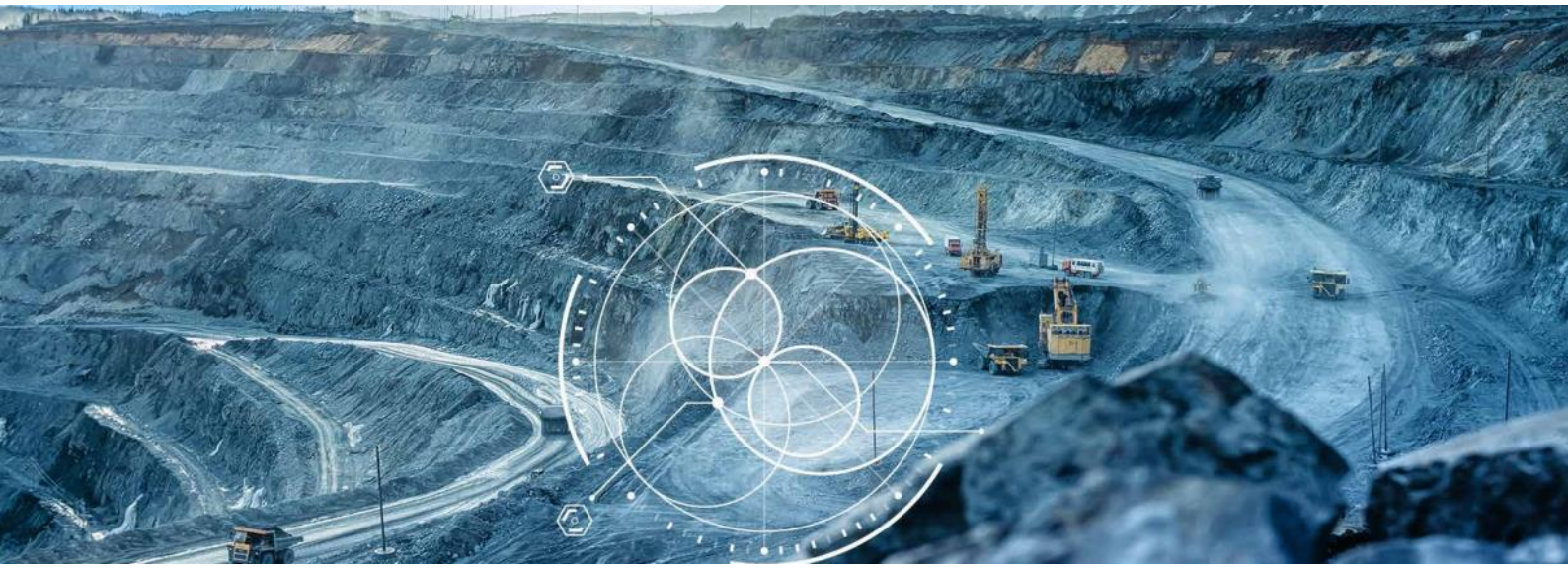
GEOVIA Surpac™ Surface Engineering Tools (5 days)



The GEOVIA Surpac™ Surface Engineering Tools course is designed for mining engineers who want to further develop their Surpac skills to complete design tasks in a surface mining environment. This course focuses on applying Surpac CAD and automatic design tools to complete demanding design and reporting tasks in an efficient way.

COURSE PREREQUISITES

- Demanding design and reporting tasks in an efficient including:
    - Data display and management
    - String files
    - CAD tools
    - DTM surfaces
    - Block modeling
    - Plotting
- Knowledge of ASCII format files and Microsoft®Excel®
- Previous exposure to the surface mining/quarrying industry
- Basic knowledge of the Windows operating system and environment is necessary as the Surpac menu structure and graphical user interface (GUI) is similar to most Windows-based packages

EXPECTED OUTCOMES

Upon completion of this course, users will:

- Use the suite of CAD and automatic design tools to create complex pit, waste dump, dam, and ramp designs
- Apply spatial, economic, and geological constraints into the design process
- Create advanced in-situ mineral reserve reportsProduce fully engineered surface road designs
- Design and report comprehensive production and ramp development blast hole layouts including pre-split or smooth blasting holes
- Produce detailed bench cut and blast layout plans
- Automate repetitive tasks to increase efficiency

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
Open pit design	Overview of design terminology used by Surpac design tools
	Use automatic bench, berm, ramp, and switchback creation tools to produce simple and complex designs
	Apply CAD tools to edit and further refine designs
	Incorporate polygon boundaries and optimized pit shells into the design process
	Create benches following geological contact or bedding plane surfaces
	Use irregular bench heights and/or variable face angles
Mass and grade reporting	Report in-situ grade and mass of mineral reserves
	Generate both bench & overall stripping ratio reports
Waste dump design	Use the automatic design tools to dimension waste dump footprints
	Use CAD and automatic design tools to create dump designs from footprints
Surface road design	Use Surpac CAD tools to create simple surface road designs.
	Create road outlines with detailed horizontal and longitudinal profiles
	Perform earthworks volume calculations
Create and report blast hole designs	Setup blast pattern, explosive and drilling parameters
	Design and validate production cut blast hole layouts as well as firing sequences
	Design and validate ramp development blast layouts as well as firing sequences
	Generate blast drilling and explosive charging reports and work orders
Open session	A session for open discussion and Q&A
Exam	Exam

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