



TRUCK & LOADER MINING SYSTEMS

COURSE CONTENT

Mine Design & Layout

Cost-effective mining methods, approach to mine design, and impact of design on schedule.

Haulage Trucks

Overview of operational characteristics, rear dump trucks, bottom dump trucks, trolley assist, equipment components, and future technology.

Loading Units

Overview of operational characteristics, rope shovels, excavators (backhoe & face shovel), front end loaders, and surface miners.

Productivity Estimation

Truck productivities (travel time estimation, cycle time influences, and performance curves), loader productivities, and integrated truck and loader fleet productivity.

Operating Techniques

Working area dimensions (optimal bench heights / width), maintaining bench grade, haul road design/maintenance, loading techniques, and truck dumping.

Factors Affecting Fleet Productivity & Cost

Loader buckets, matching, operating rules, philosophy, rolling resistance, and mixed truck fleets.

Mining Economics

Time value of money, marginal costing, discounted average cost, ownership costs, operating costs, and fleet costs.

Overview

This course teaches participants best practice planning approaches for truck and loader mining systems as well as operational improvement initiatives to improve site productivity and reduce costs. Participants will use HAULSIM in the course workshops to simulate and analyse various planning scenarios.

Learning Outcomes

- Understand the factors that impact on fleet productivity and cost.
- Learn how to best design the layout of a mine taking into account equipment characteristics.
- Learn how to build various haulage simulation models to analyse the cost benefit of new initiatives.
- Know how to choose the optimal number of trucks for a given scenario, taking into account both productivity and costs.

Who is the Course for?

- Mine Planning Engineers
- Planning Managers / Superintendents
- Senior Operational Personnel
- Equipment Manufacturers

Delivery Mode

Classroom or Remote

Duration

Classroom - Two Days

Remote - 15 hours (5 x 3 hour sessions)

Want to Learn More?

Contact training@rpmglobal.com