The MineSkill Dense Medium Cyclone Operators Course is a comprehensive education on all aspects of dense medium cyclone operation, from design parameters and separation theory through to maintenance and troubleshooting.

The DMC course is a 3-day training program that incorporates Dense Medium Cyclone processes and their control. The course is structured around the function of the DMC and references the operator’s own plant and equipment.

Practical based training will encourage participants to learn through a combination of classroom sessions, demonstrations and hands-on pilot plant trials.

Who should attend?
> Coal Preparation Plant production Operators, Supervisors and Managers
> Coal Preparation Plant Engineers and Maintenance staff

What are the features?
> Extensive reference materials are supplied
> Practical experience is gained with actual plant runs utilising the pilot preparation facilities at Maitland

What are the benefits?
> Improved operations due to better understanding of processes
> Increased plant yield
> Decreased consumables usage
> Reduced out of specification product
> Improved operator satisfaction

When can I attend?
The DMC Operators Course is held on a demand basis at ACIRL’s Pilot scale Preparation Plant at Maitland.

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# Dense Medium Cyclone Course – outline

## Introduction
**Brain-Stomring and Cause and effect**
- Problem Solving with Cause and Effect Diagrams

## Basic Principles
- Coal Formation
- Coal Preparation
- Purpose
- Size Distribution
- Washability
- Efficiency

## Process Equipment
- Desliming Screens
- Dense Medium Cyclones (demo)
- Principles of Separation
- Settling Velocity
- Drain & Rinse Screens
- Coarse Coal Centrifuges
- Classifying and Thickening Cyclones (demo)
- Spirals
- Flotation
- Fine Coal Centrifuges
- Flocculation and Thickener (demo)
- Magnetic Separators

## DMC Operating Parameters
- Feed Characteristics
- Cyclone Geometry
- Inlet Pressure
- Medium Density
- Medium viscosity and stability
- Contamination

## Medium Recovery
- Basic Medium Recovery Circuit
- Medium Recovery Methods

## Process Control
- Process Control Types
- Process Control Equipment
- Process Control Diagrams

## Quality Control
- Sampling
- Sample Preparation
- Testing and Analysis

## Plant Circuits

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