

# Directional Drilling & Surveying E-Learning

The Directional Drilling and Surveying E-Learning module is an interactive training unit that covers the fundamentals of directional drilling and surveying designed to give MWD engineers a more complete understanding of the practices employed during the application of the complimentary disciplines. The course covers every stage of the directional drilling process from initial well planning and location selection through to final landing of the well. The principles that underlie the most common directional drilling and surveying applications are covered in detail, ensuring a solid theoretical understanding of how current techniques are applied. This module is intended for those already familiar with general drilling practices, and assumes some pre-existing knowledge of rigsite operations and the general progress of the well during the well construction phase.

## Features and Benefits

### Comprehensive

The course provides a detailed overview of all elements of the directional drilling process to ensure an understanding of how measurements are applied and directional controls are implemented. Topics covered include:

- Directional program development
- Anti-collision
- Wellbore positioning
- BHA design
- Kickoff practices
- Tangent sections
- Vertical drilling
- Horizontal drilling

### Integrated

The course, although beneficial as a stand-alone unit, forms an integral module within all of the Black Diamond MWD and LWD Training Programs. These programs deliver a defined progression of e-learning, traditional teaching and on-the-job training offerings designed to support the continued development of those involved with the operation, maintenance or technical support of Black Diamond systems.

### Flexible Delivery

The course is delivered on-line and is divided into 6 sections, each of which should take no longer than an hour to complete. This allows the material to be completed at a place, time and pace to suit all. Understanding is assured by way of on-line tests that highlight areas which require review. Material can be reviewed as often as is required to ensure total understanding.

Courses are administered through the Black Diamond Technical Support Portal.

### Target Audience

Intended for MWD engineers and other field service personnel to provide a more in-depth discussion of directional drilling techniques than is usually covered in standard MWD training material, this course also benefits all those who support directional drilling and MWD operations.

## Black Diamond MWD & LWD Training Programs

Introductory	Introduction to MWD E-Learning		Introduction to Drilling E-Learning		
Core	Tensor Elite MWD	Tensor Elite MWD E-Learning	Operations Practical (3 Days)	Rigsite OJT	
			Maintenance Practical (3 Days)	Workshop OJT	
	Centerfire LWD	Tensor Gamma	Gamma E-Learning	Operations Practical (2 Days)	Rigsite OJT
			Resistivity E-Learning	Operations Practical (3 Days)	Rigsite OJT
Advanced		Centerfire LWD E-Learning	Maintenance Practical (3 Days)	Workshop OJT	
		Failure Analysis E-Learning	<b>Directional Drilling &amp; Surveying E-Learning</b>		
		Drilling Dynamics E-Learning	Advanced Magnetic Surveying E-Learning		