

## Expert Level – course content

It is assumed that delegates on this course have previously had basic and advanced level training.

This course will cover special modelling situations using specific CadnaA features for industrial noise, from simple machinery to complicated noise emitting buildings. General mapping procedures will be covered for road and rail noise.

**This is a guide only and the following list could be subject to minor changes.**

1. Industrial Modelling – Sound Power Levels .....	
1.1. General Information.....	
1.2. Determination of Sound Power Levels from Measurements .....	
1.3. Determination of Sound Power Levels from Openings .....	
1.4. Determination of Sound Power Levels from Indoor Levels .....	
1.5. Determination of Sound Power Levels from Moving Machinery .....	
1.6. Determination of Sound Power Levels from Technical Parameters .....	
1.7. Directivity of Noise Sources .....	
2. Industry Noise: Special Modelling Situations .....	
2.1. Calibration of Industrial Areas .....	
2.2. Indoor to Outdoor Calculations .....	
2.3. Radiation of Chimneys / Stacks .....	
2.4. Open Structures with or without Sources Inside .....	
2.5. Reflecting Porches, roofs or similar structures .....	
3. Traffic Noise – Sound Power Levels Based on Parameters .....	
3.1. Road Parametrization According to CRTN (UK) .....	
3.2. CRTN Specific Settings .....	
3.3. Calculation of Leq levels according to TRL study (Methods 1 and 3) .....	
4. Traffic Noise – Special Modelling Situations .....	
4.1. Fit Roads to DTM or Vice Versa .....	
4.2. Barrier Staggered in Height .....	
4.3. Barrier Optimizations .....	
4.4. Bridges .....	
4.5. Tunnels .....	

5. Uncertainty of the Evaluation Levels calculated with Prediction Software .....	
5.1. Contributions to the Overall Uncertainty of Results .....	
5.2. Calculation of the Uncertainty with CadnaA .....	