

## Day 1 – Flow of Solids in Bins, Hoppers, Chutes, and Feeders (CH032)

8:30 – 9:00 a	Introductions, course overview, training objectives
9:00 – 11:00 a	Bulk solids handling fundamentals, quiz, & <i>break</i>
11:00 – 12:00 p	Introduction to bulk solids flow testing
12:00 – 1:00 p	<i>Lunch</i>
1:00 – 2:00 p	Flow and particle properties testing, quiz, & <i>break</i>
2:00 – 3:30 p	Volumetric feeders – screws and belts
3:30 – 4:30 p	Volumetric feeders – rotary valves, gravimetric feeders, quiz
4:30 – 5:00 p	Introduction to flow rate calculations, summary/questions

## Day 2 – Flow of Solids in Bins, Hoppers, Chutes, and Feeders (CH032)

8:30 – 10:00 a	Fine powder handling, fluidization, quiz, & <i>break</i>
10:00 – 11:00 a	Bin/silo design example (step-by-step procedure)
11:00 – 12:00 a	Introduction to segregation, sifting segregation
12:00 – 1:00 p	<i>Lunch</i>
1:00 – 2:00 p	Fluidization and dusting segregation
2:00 – 3:00 p	Mixing and blending of powders, & <i>break</i>
3:00 – 3:45 p	Flow aids
3:45 – 4:30 p	Transfer chute design
4:30 – 5:00 p	Summary, questions

## Day 3 – Pneumatic Conveying of Bulk Solids (CH033)

8:30 – 10:00 a	Introduction; modes of conveying; systems, & <i>break</i>
10:00 – 11:00 a	Fundamentals of gas/solids flow
11:00 – 12:00 p	Component selection
12:00 – 1:00 p	<i>Lunch</i>
1:00 – 2:30 p	Component selection (continued), & <i>break</i>
2:30 – 3:30 p	Dense phase conveying
3:30 – 4:30 p	Dust explosions
4:30 – 5:00 p	Conclusions, questions, wrap-up