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8:00 AM	8:30 AM	<b>Safety Briefing &amp; Introductions</b>	AS & GS	
8:30 AM	9:00 AM	<b>Definitions:</b> <i>Fall Protection Terminology and Classification of Fall Protection Systems</i>	Andrew	
9:00 AM	10:00 AM	<b>Human Physiology:</b> <i>Human body subjected to transitory deceleration; Injury Thresholds</i>	Andrew	
10:00 AM	10:15 AM	<b>Break</b>		
10:15 AM	12:00 PM	<b>Human Physiology (Continued) :</b> <i>Endurance in x-y-z; Measuring MAF - 3 Frequencies; Testing and Measurement</i>	Andrew	
12:00 PM	12:30 PM	<b>Lunch</b>		
12:30 PM	2:00 PM	<b>Human Physiology (Continued) :</b> <i>Suspension Trauma vs. Rescue Time. Reality vs. Liability</i>	Andrew	
2:00 PM	3:00 PM	<b>Summary of Regulations and Standards:</b> <i>Canadian Regulations; US OSHA; CSA &amp; ANSI standards</i>	Greg	
3:00 PM	3:15 PM	<b>Break</b>		
3:15 PM	4:00 PM	<b>Introduction to CSA Z259.16:</b> <i>History; Philosophy; Rationale; Important Clauses;</i>	Greg	
4:00 PM	5:00 PM	<b>Swing Falls:</b> <i>Swing Fall Distance; Swing Drop Distance;</i> <b>Exercise 1</b>	Greg	 
5:00 PM	6:30 PM	<b>Calculation of Clearances:</b> <i>Free Fall; Deceleration Distance; Harness Stretch; Safety Buffer;</i> <b>Exercise 2</b>	Greg	 
6:30 PM		<b>Dismissal</b>		

Start	End	Topic	Presenter	Activity
8:00 AM	9:00 AM	<b>Fall Protection Equipment:</b> <i>CSA Standards</i>	Andrew	
9:00 AM	10:00 AM	<b>Fall Protection Equipment:</b> <i>Harnesses</i>	Andrew	
<b>10:00 AM 10:15 AM Break</b>				
10:15 AM	12:00 PM	<b>Fall Protection Equipment:</b> <i>Lanyards</i>	Andrew	
<b>12:00 PM 12:30 PM Lunch</b>				
12:30 PM	3:00 PM	<b>PEA Deployment Equation</b> <i>Dynamic Derivation; Energy Derivation;</i> <i>Examples; Exercise 3</i>	Greg	 
3:00 PM	3:30 PM	<b>Ballasted Anchors:</b> <i>Overtuning, Sliding Friction;</i> <b>Exercise 4</b>	Greg	 
<b>3:30 PM 3:45 PM Break</b>				
3:45 PM	4:00 PM	<b>Review Exercise 4</b>	Greg	
4:00 PM	6:30 PM	<b>Fall Protection Equipment:</b> <i>Vertical Lifelines &amp; Fall Arresters; Self</i> <i>Retracting Devices; Horizontal Lifelines</i>	Andrew	
<b>6:30 PM Dismissal</b>				

Start	End	Topic	Presenter	Activity
8:00 AM	10:00 AM	<b>Vertical Lifelines:</b> <i>Derivation of Equations; Example Calculation;</i> <b>Exercise 5</b>	Greg	 
10:00 AM	10:15 AM	<b>Break</b>		
10:15 AM	11:00 AM	<b>Introduction of Spreadsheet Software:</b> <i>Vertical Lifelines;</i> <b>Exercise 6</b>	Greg	 
11:00 AM	12:00 PM	<b>Vertical Lifelines on Sloping Surfaces:</b> <b>Exercise 7</b>	Greg	 
12:00 PM	12:30 PM	<b>Lunch</b>		
12:30 PM	3:30 PM	<b>Fall Protection Equipment:</b> <i>Connectors; Anchorages; Fall Restricting Equipment; Northern Exposures</i>	Andrew	
3:30 PM	3:45 PM	<b>Break</b>		
3:45 PM	6:30 PM	<b>Selected Industrial FP Systems:</b> <i>Construction; Electric Utilities;</i> <i>Telecommunications; Municipal; Transport</i>	Andrew	
6:30 PM	<b>Dismissal</b>			

Start	End	Topic	Presenter	Activity
8:00 AM	9:00 AM	<b>Rope Properties:</b> <i>Elastic Modulus; Calculation Software</i>	Greg	 
		<b>Exercise 8</b>		
9:00 AM	10:00 AM	<b>Simple Horizontal Lifelines:</b> <i>Equations; Explanation of Simple HLL Software;</i> <i>Example Exercises</i>	Greg	
10:00 AM	10:15 AM	<b>Break</b>		
10:15 AM	11:00 AM	<b>Simple Horizontal Lifelines Cont'd:</b> <b>Exercise 9</b>	Greg	
11:00 AM	12:00 PM	<b>HLLs with In-Line Energy Absorbers:</b> <i>History; HLL EA Properties; Physical Model;</i> <i>Balance Sag Equation Derivations</i>	Greg	
12:00 PM	12:30 PM	<b>Lunch</b>		
12:30 PM	1:15 PM	<b>HLLs with HLL EA's Cont'd</b> <b>Exercise 10</b>	Greg	 
1:15 PM	2:15 PM	<b>Explanation of Balance Sag Software</b> <i>Examples</i>	Greg	 
		<b>Exercise 11</b>		
2:15 PM	3:30 PM	<b>HLLs with Multiple Spans</b> <i>Equation Derivation; Examples</i>	Greg	
		<b>Exercise 12</b>		
3:30 PM	3:45 PM	<b>Break</b>		
3:45 PM	4:45 PM	<b>Selected Industrial FPS: Oil &amp; Gas; Chemical</b> <i>&amp; Pharmaceutical; Mining; Warehousing</i>	Andrew	
4:45 PM	6:30 PM	<b>Residual Risks in FAS;</b> <i>Analysis of selected</i> <i>Industrial Accidents, Legal Liability &amp; Due</i> <i>Diligence</i>	Andrew	
6:30 PM	<b>Dismissal</b>			

Start	End	Topic	Presenter	Activity
8:00 AM	9:30 AM	<b>Flexible End Anchorages &amp; Thermal Effects:</b> <i>Equation Derivation; Examples</i> <b>Exercise 13</b>	Greg	 
9:30 AM	10:00 AM	Rope Sag Calculations - Bonus Software	Greg	
10:00 AM	10:15 AM	<b>Break</b>		
10:15 AM	12:00 PM	<b>HLLs with HLEAs using Software:</b> <i>Explanation &amp; Example</i> <b>Exercise 14</b>	Greg	 
12:00 PM	12:30 PM	<b>Lunch</b>		
12:30 PM	3:30 PM	<b>Residual Risks Cont'd&amp; Selected Hazard Alerts</b> <i>Legal Liability &amp; Due Diligence</i>	Andrew	
3:30 PM	3:45 PM	<b>Break</b>		
3:45 PM	5:00 PM	<b>Combined HLLs &amp; VLLs (or Lanyards):</b> <i>Equation Derivation; Examples</i> <b>Exercise 15</b>	Greg	 
5:00 PM	6:00 PM	<b>Lump Mass vs. Sequential Falls:</b> <i>Explanation; Examples</i> <b>Exercise 16</b>	Greg	 
6:00 PM	6:30 PM	<b>Procedures, Design Assumptions:</b> <i>Recommended Practices</i>	Greg	
6:30 PM	<b>Dismissal</b>			

Start	End	Topic	Presenter	Activity
8:00 AM	11:00 AM	<b>Rescue:</b> <i>Techniques; Qualifications; Engineering Considerations</i>	TBA	
11:00 AM	3:00 PM	<b>Final Exam (2 Parts)</b> <i>(Lunch will be served during the exam)</i>		
2:00 PM	4:00 PM	<b>Dismissal</b>		