

Introduction to System Safety Engineering and Management- Part A

Day	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	
Mon	Introduction to System Safety Engineering <ul style="list-style-type: none"> Overview of legal aspects 	Terminology / Definitions <ul style="list-style-type: none"> Accident, Hazard Failure 		Preliminary Hazard Identification	Case Study: AGV PHI	Case Study: Piper Alpha Video and Exercise	
Tue	Safety Management <ul style="list-style-type: none"> Safety Management Systems System Safety Programme Plans 	Modelling Event Sequences <ul style="list-style-type: none"> Event Trees 	Case Study: Chemical containment event tree construction	Risk Assessment <ul style="list-style-type: none"> Severity Probability Risk Acceptability of risk	Case Study: Risk assessment	Functional Failure Analysis <ul style="list-style-type: none"> FFA Overview Getting Value from FFA 	Case Study: Wheel Braking System FFA
Wed	Quantitative methods in System Safety <ul style="list-style-type: none"> Overview of quantitative approaches "Use and abuse" of statistics Collecting data 		Case Study: Safety arguments based on quantitative claims	FMEA	Fault Trees <ul style="list-style-type: none"> Basic Notation Construction Evaluation 	Case Study: AGV Fault Tree	
Thu	Safety Case Development 1 <ul style="list-style-type: none"> Purpose Argument and Evidence Safety Case Contents Safety Case Development Process 		Case Study: Computer Assisted Braking System Safety Case	Safety Case Dev't 2 <ul style="list-style-type: none"> Phased Safety Case Construction 	Systematic Failure	Integrity Levels	Human Factors <ul style="list-style-type: none"> Overview Implications for designers Video
Fri	Common Cause Analysis <ul style="list-style-type: none"> Common causes Zonal analysis Particular risks 	Case Study: Ship Zonal Analysis <ul style="list-style-type: none"> Ship Zonal Analysis 	Operational Safety <ul style="list-style-type: none"> System Safety and Operational Safety Organisational Accidents Capture and use of in-service experience 	Software Hazard and Safety Analysis <ul style="list-style-type: none"> Perceptions of the state of Software Safety 	Software Hazard and Safety Analysis- Contd. <ul style="list-style-type: none"> Software Development and Safety Processes Software Safety Case 	System Safety Overview	Conclusions