

Historical background, Ethics. Safety & Health and organizational efficiency. Technical, Behavioral and Systemic approaches to the problem of Occupational Safety and Health (OSH). Statistical analysis of occupational accidents and work related diseases. Proactive OSH metrics. OSH Accident analysis methods (cause-effect, event trees, fish-bone & bow-tie diagrams). Industrial occupational risk assessment methods. Basic OSH legislative & regulatory issues. The cost/ benefit of OSH. OSH management systems at the enterprise (OHSAS 18001, ISO 45001). System safety and resilience. Elements on human error and procedure deviation/ violation. Analysis of large scale industrial and transportation accidents. Swiss Cheese model and Sociotechnical intervention methods.