

Course Contents:

Overview: Diverse nature of construction projects, definitions, stakeholders, specifications, compliance, acceptance, relating quality of materials, components and system, factors influencing quality and safety, contracts, inspection, cost of quality and safety, processes and products, archiving records; Concepts of quality control: Objectives, definitions, systems, ISO 9000 family of standards, third-party certification, QC in construction and large projects (aircraft, ship building); Basic construction safety: Hazards, human factors in construction safety, introduction to occupational health and safety, problem areas in construction safety, elements of an effective safety program, job-site safety assessment, safety planning, safety audit; Legal issues in quality and safety: Regulatory framework, labour laws, compensation; Safety engineering: Training, audit, management practices, safety planning, PPE, construction accidents: nature, causes, investigation and reporting accidents; Case studies and examples: Quality and safety issues in steel construction, concrete construction (including pre-cast, pre-stressed), tunnelling, bridges (*not all need be covered*).