



Development programme

Overview and information

ABB Service

ABB has a worldwide reputation as a leader in process safety, integrity management and technical engineering services.

We provide technical consulting and engineering services to improve performance in the areas of compliance, operations and engineering customers in the chemical, petrochemical, oil & gas, power, pharmaceutical and other process industries worldwide.

ABB training

The training delivers improved business effectiveness through enhanced personal competence. To make robust risk-based decisions, professional engineers need an appropriate level of proficiency relating to design features, modes of deterioration, operation and maintenance procedures, fitness for service and human factors. We continue to adapt our training approach to incorporate changes in both legislation and industry good practices.

The courses are presented in an interactive manner by presentation and discussion of the key issues. Case studies and exercises based on actual events allow delegates to put the philosophies they have learned into practice.

Development programme

The development programme is designed to offer a structured curriculum of training, or roadmap, (from our list of professional development courses), suitable for:

- Graduates to attend as part of their graduate training programme
- Individuals who wish to progress to the next level within their company
- Individuals who wish to be chartered by their chosen professional institute
- Individuals who have changed their discipline or department

At ABB we work to support the individual and their company to provide the best training possible, to ensure the competency and development of the entire team.

How it works

ABB have a number of training courses, which cover a wide range of topics. This programme has been developed to produce a roadmap of training for an individual which will support them through progression in their chosen career.

ABB will work with the individual and their company to select a personalised training programme utilising the courses offered by ABB. We can also support individuals to find courses required as part of their development process, but not currently offered as part of the ABB portfolio.

Example training roadmaps, by job role:

Mechanical engineer

- An engineer's guide to DSEAR
- Asset integrity management
- Design and operation of piping systems
- Essentials of pressure systems
- Essentials of rotating equipment
- Maintenance and reliability improvement
- Management of Change (MoC)
- Mechanical legislation awareness (e-Learning)
 - Machinery Directive and Supply of Machinery (Safety) Regulations **Updated since leaving EU**
 - Provision and Use of Work Equipment Regulations (PUWER) **Updated since leaving EU**
- Pressure relief awareness
- Process safety awareness
- Reliability awareness (e-Learning) - see **ABB e-Learning courses** for more information

Chemical engineer

- Advanced hazard assessment techniques for SIL determination (T242C)
- An engineer's guide to DSEAR
- Design and operation of piping systems
- Essentials of pressure systems
- Hazard study awareness
- Hazard study leaders
- Human factors awareness
- Layer Of Protection Analysis (LOPA) awareness (T242A)
- Management of Change (MoC)
- Pressure relief
- Process safety awareness
- Safety critical procedures

Electrical engineer

- An engineer's guide to DSEAR
- Electrical awareness
- Management of Change (MoC)
- Pressure relief awareness
- SIL awareness technicians (T251H)

General engineering

- Asset integrity management
- Design and operation of piping systems
- Essentials of pressure systems
- Essentials of rotating equipment
- Maintenance and reliability improvement
- Mechanical legislation awareness (e-Learning)
 - Machinery Directive and Supply of Machinery (Safety) Regulations **Updated since leaving EU**
 - Provision and Use of Work Equipment Regulations (PUWER) **Updated since leaving EU**
- Pressure relief
- Pressure relief awareness
- Reliability awareness (e-Learning) - see **ABB e-Learning courses** for more information

Functional safety

- Advanced hazard assessment techniques for SIL determination (T242C)
- Cyber security awareness and SIS (T261)
- Design SIL achievement (T243)
- IEC 61511 Compliance for technicians (T251F)
- IEC 61511 Functional safety appreciation and awareness (T241)
- IEC 61511 SIL determination (T242B)
- Layers of Protection Analysis (LOPA) awareness (T242A)
- SIL awareness for technicians (T251H)
- TÜV Rheinland cyber security risk assessment (T263)
- TÜV Rheinland fundamentals of cyber security (T262)
- TÜV Rheinland functional safety engineer - SIS (T245)
- TÜV Rheinland functional safety technician training (T252)

Mentors

As part of this product we can also provide the additional support of an industrial mentor. The mentor will provide technical support with regards to the training material, either by phone, email or face-to-face, for an agreed length of time after the training has taken place.

Training methods

Our courses are interactive with lecture style presentations supplemented with practical examples, case studies and individual & group exercises where appropriate.

Our courses are provided in both face-to-face and virtual classroom format, depending on the course. These courses are supported by our ever increasing suite of e-learning topics.

ABB open courses

Listed below are all the professional development courses offered by ABB as part of this development programme:

- Advanced hazard assessment techniques for SIL determination (T242C)
- Advanced HAZOP training for HAZOP leaders
- An engineer's guide to DSEAR
- Area classification
- Asset integrity management
- Deep dive audits and assessments
- Design and operation of piping systems
- Design SIL achievement (T243)
- Effective alarm management modular training courses:
 - Module 1: Essential alarm management
 - Module 2: Application of alarm management
 - Module 3: Advanced alarm management
- Electrical awareness
- Environmental sustainability skills for managers **New for 2022**
- Environmental sustainability skills for the workforce **New for 2022**
- Essentials of pressure systems
- Essentials of rotating equipment
- Hazard study awareness
- Hazard study leaders
- Human factors awareness
- Human factors in the workplace
- Human reliability analysis workshop
- IEC 61511 SIL determination (T242B)
- Layer Of Protection Analysis (LOPA) awareness (T242A)
- Maintenance and reliability improvement
- Management of Change (MoC)
- Mechanical legislation awareness
- Pressure relief
- Pressure relief awareness
- Process safety awareness
- Process Safety Management (PSM) best practice
- Safety critical procedures **New for 2021**
- SIL awareness technicians (T251H)

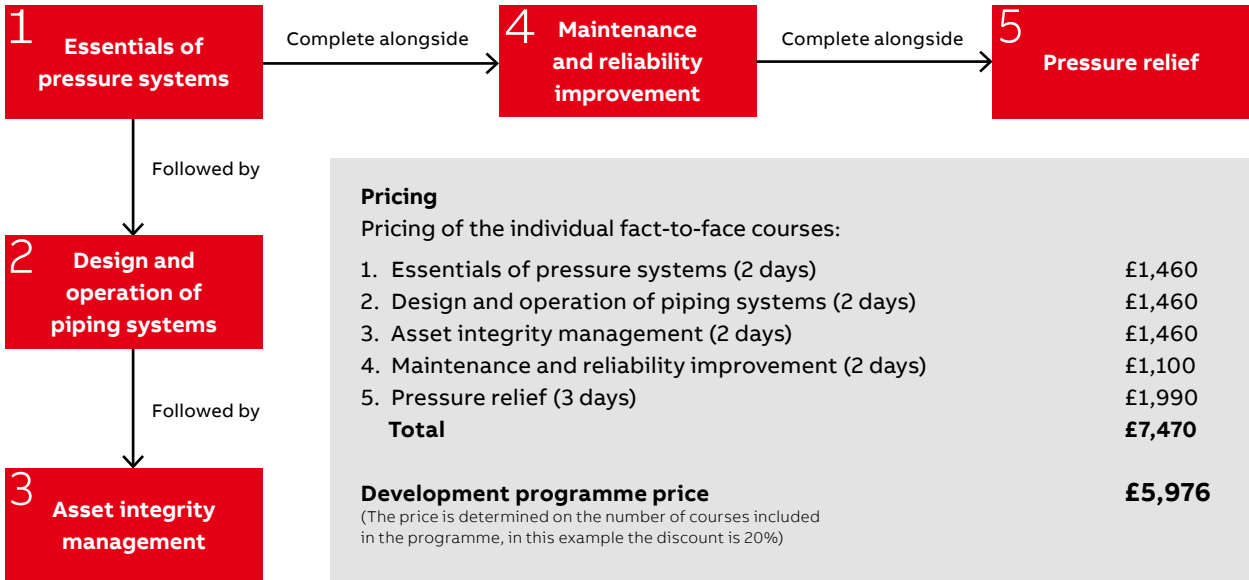
ABB e-Learning courses

- Mechanical legislation awareness
 - Machinery Directive and Supply of Machinery (Safety) Regulations **Updated since leaving EU**
 - Provision and Use of Work Equipment Regulations (PUWER) **Updated since leaving EU**
- Reliability awareness - Nine individual modules **New for 2021**
 - Module 1: Reliability - The basics
 - Module 2: Criticality Analysis (CA)
 - Module 3: Loss management
 - Module 4: Root Cause Analysis (RCA)
 - Module 5: Failure Mode Effect Analysis / Failure Mode Effect and Criticality Analysis
 - Module 6: Spares
 - Module 7: Key Performance Indicators (KPIs) and benchmarking
 - Module 8: CEDAC - Cause & Effect Diagrams with Additions of Cards
 - Module 9: Types of maintenance

Pricing

The pricing for this product will be specific to the individual, and will be generated as part a proposal. The price will be based on the number of courses selected and over what time period. Any additional services such as the mentoring will be priced based on the particular requirements. Discounts are available depending on the number of trainees.

Example roadmap



Example: Functional safety engineer / manager



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