FESTO

Festo Didactic

Global Online Trainings Catalogue

Online trainings offered globally

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Online trainings offered globally

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14. Mastering the fundamentals of the Supply Chain	(English, French)	F-FR
15. e-CPIM part 1 - Basics of Supply Chain Management	(English, French)	F-FR

Registration & Pricing

Email: **tac.global@festo.com**

Fundamentals of Pneumatics

Target Audience:

Maintenance staff, engineers and designers
Max. 20 participants per session

Duration:

8 hours:
4 sessions (2 hours each)

Language:

English

Register now

Training Outcomes:

After completing this training course, the participants:

- can identify and describe the design, features and operation of pneumatic components
- can identify and explain symbols for pneumatic components
- are able to interpret technical specifications and data relating to pneumatic components

Training Contents:

- Basic Circuit levels Symbology Other basics
- Direct Control Indirect Control Speed Controls Roller Limit Valves
- Cylinders variations AND/OR valves
- Pressure Valves Magnetic Limit Valves Manual/Auto AND/OR Valves Timers
- Cascade system design

All Exercises are done on FluidSIM by the participants

Basic Hydraulics

Target Audience:

Maintenance staff, engineers and designers
Max. 20 participants per session

Duration:

8 hours:
4 sessions (2 hours each)

Language:

English

Register now

Training Outcomes:

After completing this online course, the participants:

- can interpret technical specifications and data relating to hydraulic components and systems
- can interpret safety measures
- are familiar with graphical symbols for hydraulic components
- can perform simple calculations of pressure, flow and force

Training Contents:

- Basic hydraulic principals
- Pump Test
- Pressure relief valve test
- Resistance to flow from load and line
- Single acting cylinder control, bypass control and using a 3/2way valve
- Double acting cylinder control with counter balancing
- Control and positioning of a double acting cylinder using a 4/3-way valve and pilot operated non-return valve
- Speed control, metering in and metering out
- Speed control metering in and counter balancing
- Speed control using a pressure compensated flow control valve
- Speed increase of a double acting cylinder through regeneration
- Limiting and controlling the force on a cylinder through a pressure regulator

All Exercises are done on FluidSIM by the participants

Introduction to PLC

Target Audience:

Maintenance staff, engineers and designers

Duration:

8 hours:
4 sessions (2 hours each)

Language:

English

Register now

Training Outcomes:

After completing this training course, the participant will:

- know how to setup a project in CoDeSys 3.5
- know how to setup a interface between the program device and PLC
- understand OR FUNCTION, ST-Structure(IF ,THEN) LDD-Ladder diagram - NO,NC,COIL
- understand AND FUNCTION , ST-Structure, LDD-Ladder diagram
- understand NEGATING, ST-Structure, LDD-Ladder diagram
- understand SET and RESET, ST-Structure, LDD-Ladder diagram
- understand EDGE TRIGGER / RISING- and FALLING EDGE ST-Structure, LDD-Ladder diagram
- understand TIMERS, ST-Structure, LDD-Ladder diagram
- understand CASE INSTRUCTION , ST-Structure
- understand CASE INSTRUCTION and COUNTERS, ST-Structure

Training Contents:

- Create a Project : Exercise 1
- Warning Lamp
- Exercise 2: Change of conveyor direction
- Exercise 3: Pneumatic Press
- Exercise 4: Belt Sander
- Exercise 5: Swivel Bridge
- Exercise 6: Rachet Conveyor
- Exercise 7: Labelling Device
- Exercise 8: Embossing Machine
- Exercise 9: Packaging of Spark Plugs

All Exercises are done on CoDeSys simulation by the participants

Note: This training could be offered based on SIMATIC S7 per request using PLCSIM

Electro Pneumatics

Target Audience:

Maintenance staff, engineers and designers
Max. 20 participants per session

Duration:

8 hours:
4 sessions (2 hours each)

Language:

English

Register now

Training Outcomes:

After completing this training course, the participants:

- can describe the functional relationship between pneumatic and electrical components
- can identify and describe the design, features and operation of electropneumatic and electrical components
- can identify and explain symbols for electropneumatic and electrical components
- can read and interpret electropneumatic circuit diagrams

Training Contents:

- Electrical principles
- Electrical and pneumatic symbols and standards
- Interaction of electrical control section and pneumatic power section
- Function of signal generators (push buttons, switches and relays)
- Components of power section control section
- Electronic sensors (inductive, capacitive and infrared)
- Systematic production and reading of electrical circuit diagrams
- Operating modes of electro - pneumatic control systems
- Coordinated sequence controls
- Safety regulations and valid standards for electrical engineering and pneumatics
- Typical Industrial circuits

How to Integrate Festo Equipment with Siemens PLC

Target Audience:

Maintenance staff, engineers and designers
Max. 20 participants per session

Duration:
8 hours:
4 sessions (2 hours each)

Language:
English

Register now

Training Outcomes:

After completing this training course, the participant will:

- know how to setup a interface between the program device and PLC
- understand OR FUNCTION, ST-Structure(IF ,THEN) LDD-Ladder diagram - NO,NC,COIL
- understand AND FUNCTION , ST-Structure, LDD-Ladder diagram
- understand NEGATING, ST-Structure, LDD-Ladder diagram
- understand SET and RESET, ST-Structure, LDD-Ladder diagram
- understand EDGE TRIGGER / RISING- and FALLING EDGE ST-Structure, LDD-Ladder diagram
- understand TIMERS, ST-Structure, LDD-Ladder diagram

Training Contents:

- Create a Project : Exercise 1
- Warning Lamp
- Exercise 2: Change of conveyor direction
- Exercise 3: Pneumatic Press
- Exercise 4: Belt Sander
- Exercise 5: Swivel Bridge
- Exercise 6: Rachet Conveyor
- Exercise 7: Labelling Device
- Exercise 8: Embossing Machine
- Exercise 9: Packaging of Spark Plugs

All Exercises are done on PLCSIM simulation by the participants

Introduction to Project Management – Managing projects for success

Course Topic: Project Management Methodologies

Target Audience:

- Project Managers and Project Leaders
- Functional Managers and Directors
- Senior Executives
- Portfolio Managers
- Program Managers
- Operations directors

Number of participants: 4 - 10

Duration:

16 hours:
4 sessions (4 hours each)

Language:

English

Training Outcomes:

After completing this training course, the participant will:

- Acquire a broad and flexible toolkit of techniques
- Acquire broad vision on projects and processes
- Improve their planning and execution skills
- Improve their leadership skills

Training Contents:

- Principles of Project Management
- Project success and failure factors
- Organizational influences on Project Management
- Project Stakeholders and governance
- Project integration management
- Project life cycle
- Project scope definition
- Project Charter
- Project Stakeholders and governance
- WBS – Work Breakdown Schedule
- Activity and resource planning
- Project management team
- Time and cost estimates
- Activity sequencing and CPM –
- Critical Path Method
- Project scheduling
- Project budget
- Communications plan
- Risk Management
- Project status key indicators
- Variance analysis
- Project reporting
- Follow-up and re-planning
- EVM – Earned Value Management
- Project closing activities
- Lessons learned

Lab:

Exercises on project management, charter, planning, execution and closing
Participants' case studies optional

Register now

Design FMEA – the Key to product reliability

Course Topic: Product development methodologies – Failure mode & Effect Analysis

Register now

Target Audience:

- Designers
- Research & Development
- Portfolio Managers
- Production Planners
- Program Managers
- Project Managers and Project Leaders

Number of participants: 4 - 10

Duration:

8 hours:
2 sessions (4 hours each)

Language:

English

Training Outcomes:

After completing this training course, the participant will:

- Use this effective methodology as a tool for anticipating risks and mistakes during product development preventing problems in the life cycle
- Apply the Design FMEA tool in the correct context

Training Contents:

- F.M.E.A. as a prevention tool
- Formalize information to prevent
- Impact on quality and reliability
- Analysis of possible failures
- Identification/Classification of the corrective actions
- Living document: real-time design change risk management
- Preparing for analysis
- Defining the problem
- Function Analysis
- Creating the Failure Modes List
- The documentation required for the development of F.M.E.A. works
- F.M.E.A. Indices: Probability, Severity, Detectability
- Index evaluation criteria (P, S, D)
- R.P.N. index calculation (Risk Priority Number) in comparison with the new AIAG VDA approach
- How to classify the RISK level
- When to take corrective action
- Impact of DFMEA on validation activities and the production process

Lab:

- FMEA exercises step by step
- Use your own product for exercises
- Analysis and discussion on cases

Design for Manufacturing DFMA – Design efficiency from the beginning

Course Topic: Product development methodologies – Design Methods

Register now

Target Audience:

- Designers
- Research & Development
- Portfolio Managers
- Production Planners
- Program Managers
- Project Managers and Project Leaders

Number of participants: 4 - 10

Duration:

8 hours:
2 sessions (4 hours each)

Language:

English

Training Outcomes:

After completing this training course, the participant will:

- Use this effective methodology as a tool for anticipating risks and mistakes during product development preventing problems in the life cycle
- Apply the Design FMEA tool in the correct context

Training Contents

Design for assembly: general principles
• Fewer Components, Less Connections
•Product Design and DFMA
•The 3 Key Questions to Reduce the Number of Parts
•Trimming for component aggregation modifying functions
•The role of symmetry, how to calculate it
•Estimating the ideal manual assembly time and its costs from the geometric characteristics of the components
•The DFA index
•How to reduce assembly time by intervening on part geometry
•Automatic assembly, peculiar features
•Estimating the cost of automatic assembly from the geometric characteristics of the parts
• Reduce the variety of parts and processes - Standardize
•Simplify assemblies
•Facilitating handling
•The role of gravity and "top down" assemblies
•What makes a part difficult to assemble?
•Simplifying Methods

Design for manufacturing
•General Principles
•Choosing the optimal combination of material and production process, selection matrices
•Parameter cost estimation techniques

Labs
Exercises on assembly components design
Exercises on self cases – send / present your own case to learn

SCRUM for Managers

Target Audience:

- Entrepreneurs, Executives
- Managers, leaders and anyone with responsibilities in the company
- Program manager, HR manager, R&D manager
- Scrum master, Product owner and Agile coach

Duration:

8 hours:
2 sessions (4 hours each)

Language:

English

Training Outcomes:

After completing this training course, the participant will:

- Know the areas of application of the Agile approach within the industrial context
- Understand the potential of the Agile method and application fields
- Know the Scrum method and the typical tools of the approach
- Seize ideas and tips for immediate application

Training Contents:

Register now

The limits of traditional management

- How to respond to the complexity in the development and management of Agile and Lean projects: from manufacturing to software and back
- Overview of the main methodologies
- The limits of the waterfall approaches and the fields of elective use
- Overview on Agile applications in Manufacturing and IT development

Scrum

- How to implement the process of developing a product / service with Scrum
- What are the key roles in Scrum and how to identify the most suitable people
- What are the events of Scrum: Sprint planning, Sprint review, Retrospective, Daily Scrum, Backlog refinement
- What are the artifacts, tools and metrics in Scrum
- How to create a close-knit team
- The power of visual planning
- How to organize and manage daily stand-up meetings

Scrum manufacturing

- How to apply Scrum in an industrial context
- Roles and events
- Scrum and Lean continuous improvement
- Apply Extreme Programming in Hardware Engineering
- Create user stories to get the correct specifications
- Pairing and swarming: a cohesive team that responds to change
- Test driven development - right the first time

Object oriented architecture

- Exploit the logic of object-oriented programming of software design for manufacturing
- How to innovate manufacturing with software design patterns
- Modular components
- Define the interfaces first, then the system
- Rapid prototyping and incremental evolution

Cases and operational exercises
Scrum simulator - a high impact game to prove the effectiveness of the method
Case history analysis Labs

Kanban: an Agile method for knowledge workers

Target Audience:

- Project Manager, Scrum Master
- R&D managers who manage projects with high innovative and technological content
- Business unit and process owner managers
- Managers of companies that have ongoing programs to extend the Agile methodology and want to ensure adequate professional figures
- The realities that are not satisfied with the performance of the Project Management systems currently in use

Duration:

16 hours:
4 sessions (4 hours each)

Language:

English

Training Outcomes:

- A lightweight framework to manage complexity in a knowledge-based work environment
- An incremental, evolutionary and changing approach to processes and systems for organizations
- The application of the agile and lean approach within office contexts
- Balancing customer demand and business capabilities
- Reduce waste and non-value activities during project management
- Reduce time to market by reducing incoming changes
- Continuous improvement and risk management through feedback loops

Training Contents:

- Principles and practices of the Kanban methodology in the field of Project Management
- An always applicable workflow management method
- How to build your own Kanban framework
- What are the tools
- Build the boards and define the cards
- Metrics and Graphs
- The applicable performance indicators
- The online tools to use the method at pilot level or at company management level
- Programs and portfolio management with the Kanban approach
- Cost of delay and risk management
- Examples of real cases
- Cases and operational exercises
- Case history analysis

Register now

Fundamentals of Effective Maintenance (IW-OPT)

Target Audience:

- Maintenance Managers
- Lean Managers
- Production Managers
- Industrial Engineering Managers

Number of participants: 4 - 10

Duration:
12 hours:
6 sessions (2 hours each)

Language:
English

Training Outcomes:

After completing this training course, the participant is:

- familiar with the different areas and roles of maintenance
- able to identify the six typical kinds of losses on machine and systems and improve these in a systematic way
- familiar with typical maintenance documents and be able to use them in their daily work
- capable of integrating and optimizing their own work in the processes of the maintenance area

Register now

Training Contents:

- Role of maintenance and technical service
- The six typical sources of loss in machines and systems
- Maintenance, inspection and repair
- Key indicators for maintenance:
- OEE (Overall Equipment Effectiveness), TEEP (Total Equipment
- Effectiveness Productivity), MTBF (Mean Time Between Failures),
- MTTR (Mean Time To Repair)
- Structure and design of systematic fault detection
- Creating maintenance and inspection plans
- Analysis of weak spots and targeted improvement of machines
- and systems
- Spare parts management
- Maintenance organization
- Evaluation of maintenance work
- Practical examples and exercises

Targeted Selection of Maintenance Strategies (IW-ST)

Target Audience:

- Maintenance Managers
- Lean Managers
- Production Managers

Duration:
12 hours:
6 sessions (2 hours each)

Language:
English

Training Outcomes:

After this seminar the participants know typical maintenance strategies and their influence on production systems. They will be able to select these depending on their machines and will be able to plan the process of introducing maintenance strategies. Furthermore, participants can use selected key figures to measure the success of maintenance strategies.

Register now

Training Contents:

- Production systems and their influence on maintenance
- Six typical sources of loss in machines and systems
- Roles and self-image of maintenance
- Forms of organization of maintenance
- Maintenance strategies in comparison:
- Event-based maintenance
- Regular maintenance
- Total Productive Maintenance (TPM®)
- Reliability Centred Maintenance (RCM)
- Risk-based maintenance - Risk Based Maintenance (RBM)
- Methods for selecting maintenance strategies
- Key figures for entering the maintenance service
- The process of introducing maintenance strategies
- Examples and practical exercises

Structured Problem Solving (PLT)

Target Audience:

- Maintenance Technicians
- Lean Consultants
- Team leaders
- Operators

Duration:
12 hours:
6 sessions (2 hours each)

Language:
English

Training Outcomes:

After this seminar the participants are able to identify the causes and characteristics of the problems in a targeted manner. They learn about the six phases in the problem-solving cycle and can apply them. The participants use appropriate techniques to develop suitable solutions and to present their advantages and disadvantages.

Register now

Training Contents:

- Typical problem situations in everyday working life
- The six phases in the problem-solving cycle
- Checklists for problem identification
- The 5 times why technique
- The cause-effect diagram
- The brainstorming method
- The multipoint technology
- The action plan
- Working with fault and error documentation
- Practical examples for training the methods and tools

Mastering the fundamentals of the Supply Chain

Certification in French

Target Audience:

- Supply Chain Managers, Employees, Planners, Auditors
- Production Managers
- Purchasing Managers and Employees

Duration:

Total 45 hours:

- 19 hrs E-learning
- 23 hrs Web class (live)
- 3 hrs exam

Training Outcomes:

The training is completed by an exam. The success to the exam yields to the Certification that below objectives and competencies are acquired

After completing this training course, the participant will:

- See “contents” as the framework for the competencies being developed – details are given in French though.

Register now

Training Contents:

- Introduction to Supply Chain
- The planning System
- Inventory Management
- Excellence in operations
- Demand Management
- Master Planning
- Material Requirements Planning
- Execution and Control of Operation
- Capacity Management
- Buying and procurement
- Distribution (Channel configuration, transport modes, warehousing)

Language:

English

e-CPIM part 1 - Basics of Supply Chain Management

Dual Certification French (Festo)/ English (APICS)

Target Audience:

- Supply Chain Managers, Employees, Planners, Auditors
- Production Managers
- Purchasing Managers and Employees

Duration:

Total 50 hours:
19 hrs E-learning
25 hrs Web class (live)
3 hrs Exam (in French – Festo)
3.5 hrs APICS Exam in English

Training Outcomes:

The training is in 2 phases completed by each by an exam. The success to the exams yields to the Certification that below objectives and competencies are acquired:

- See “contents” as the framework for the competencies being developed – details are given in French though.

Register now

Training Contents:

- Introduction to Supply Chain
- The planning System
- Inventory Management
- Excellence in operations
- Demand Management
- Master Planning
- Material Requirements Planning
- Execution and Control of Operation
- Capacity Management
- Buying and procurement
- Distribution (Channel configuration, transport modes, warehousing)

Language:

English

We look forward to hearing from you!

Registration & Pricing

Email: **tac.global@festo.com**

Your Festo Didactic Team.