

ASME LEARNING & DEVELOPMENT
CORPORATE TRAINING
COURSE CATALOG
2025-2026

Live and On Demand courses
from top engineering experts



ASME LEARNING & DEVELOPMENT

Training for Engineering Transformation

For over 100 years, engineers around the world have trusted ASME to deliver industry-consensus standards. Now, a growing number of companies from a broad spectrum of sectors are trusting ASME with their technical and management training.

Join leading manufacturers, contractors and service providers from aerospace & defense, energy & utilities, automotive, electronics & consumer goods, and other industries when you choose ASME for your corporate training needs.

Align your engineering and compliance personnel with training on ASME standards, including:

- Y14.5 Geometric Dimensioning & Tolerancing
- B31.3 Process Piping
- BPVC Section VIII Rules for Construction of Pressure Vessels
- FFS-1 Fitness-for-Service
- NQA-1 Quality Assurance Requirements for Nuclear Facility Applications
- BPVC Section III Rules for Construction of Nuclear Facility Components
- B31.8 Gas Transmission and Distribution Piping Systems
- BPVC Section IX-Welding, Brazing, and Fusing Qualifications

Get expert guidance on essential engineering skills and concepts:

- Drawing interpretation
- Welding
- Finite Element Analysis (FEA)
- Fracture mechanics
- Computational Fluid Dynamics
- Root Cause Analysis
- Shock and vibration design and analysis
- Bolting assembly and inspection

Retain top talent and provide career advancement with business training on:

- TRIZ: The Theory of Inventive Problem Solving
- Agile Project Management
- Technical writing
- Ethics and communication for engineers

Help your engineering teams learn skills that they can apply in their day-to-day work. ASME offers courses relevant to:

- Mechanical engineers
- QA/QC engineers
- Design engineers
- CAD engineers
- Process engineers
- R&D engineers
- Structural engineers
- Project Managers

Learn as a team to succeed as a team.

Get your engineering teams aligned to reduce waste, deliver projects on time, and stay up to date with the latest innovations in your industry.

Schedule training that works for your company calendar

- Train groups in half-day rotations to keep your projects in flight and learn while you earn

Hands on, in person training

- Bring our expert instructor on site to your facility

Customize course content

- Work with our learning experts and instructors to include your team's use cases in course modules

Get a quote for ASME Corporate Training

If you have a group of 10 engineers or more, contact learningsolutions@asme.org to get a quote for ASME Corporate Training.

CONTENTS

ASME Virtual Classroom

Geometric Dimensioning & Tolerancing	7
Design, Materials & Analysis	7
Modeling & Simulation	8
Boilers & Pressure Vessels	8
Piping & Pipelines	9
Nuclear	10
Bolting	11
Welding & Brazing	11
Fluids & Heat Transfer	11
Management, Leadership, & Innovation	12

Learning Path

Geometric Dimensioning & Tolerancing	14
Design, Materials & Analysis	14
Boilers & Pressure Vessels	14
Piping & Pipelines	14
Bolting	15
Robotics	15
Engineering Workplace Essentials	15

Guided Study

Geometric Dimensioning & Tolerancing	17
Design, Materials, & Analysis	17
Bolting	17
Welding & Brazing	17
Fluids & Heat Transfer	17
Management, Leadership & Innovation	17

Self Study

Geometric Dimensioning & Tolerancing	19
Design, Materials & Analysis	19
Boilers & Pressure Vessels	19
Piping & Pipelines	20
Nuclear	21
Bolting	21
Fluids & Heat Transfer	22
Welding & Brazing	22
Bioprocess	22
Management, Leadership, & Innovation	22
Modeling & Simulation	23
Risk & Reliability	23
Robotics	23

ASME VIRTUAL CLASSROOM

Live online courses with an instructor and peers.

Remote Learning Reinvented

ASME Virtual Classroom is a live instructor-led learning solution that provides working professionals with an enhanced classroom learning experience through video conferences with ASME's world-class instructors, collaboration with peers, discussion boards, online assessments, and much more.

With thousands of hours of successful virtual instruction already logged, ASME Learning & Development is poised to provide you with training you can trust.

ASME Virtual Classroom delivers an enhanced online learning experience with:

- Real-time live learning from expert instructors
- Interactive Q&A
- Discussion boards, polls and surveys
- Online assessments (when applicable)
- Digital access to course material
- Digital certificate of completion
- Collaboration with peers

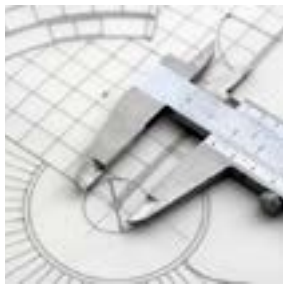
“THE COURSE MATERIAL, INSTRUCTOR,
AND MODERATOR WERE EXCELLENT”



VCPD694
Fundamentals of Geometric Dimensioning and Tolerancing in Design Through Manufacturing (for GDT Technologist Level) (Virtual Classroom)

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Learn to use and apply GD&T to help eliminate ambiguities in design and ensure seamless communication across teams in this virtual course.



VCPD866
Geometric Dimensioning and Tolerancing (GD&T) for Quality, Inspection and Reporting

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

This course focuses on how to apply Geometric Dimensioning and Tolerancing (GD&T) in inspection and apply content from the ASME Y14.45-2021 Standard for Measurement Data Reporting.



VCPD695
Advanced Geometric Dimensioning and Tolerancing & Introduction to Stacks Analysis (Virtual Classroom)

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

This virtual course pairs an in-depth look at the concepts in the ASME Y14.5-2009 standard with practical application and real-world examples.



VCPD734
GD&T Fundamentals with Stack and Gaging Applications (Virtual Classroom)

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Learn the basics of Geometric Dimensioning & Tolerancing (GD&T) at ASME Y14.5 Fundamentals Training Workshop. Educate yourself with ASME virtual classroom.



VCPD570
Geometric Dimensioning and Tolerancing (GD&T) Fundamentals

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Read and create engineering drawings and interpret design intent per ASME Y14.5 - Geometric Dimensioning and Tolerancing (GD&T).



VCPD737
Geometric Dimensioning and Tolerancing (GD&T): Basic to Intermediate Level (Virtual Classroom)

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Acquire skills and knowledge through training in this GD&T course per the ASME Y14.5 Standard

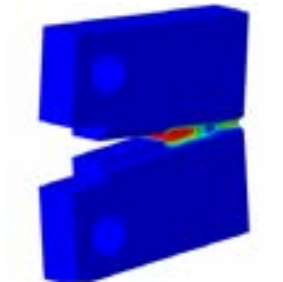
DESIGN, MATERIALS & ANALYSIS VIRTUAL CLASSROOM



VCPD561
Geometric Tolerancing (GD&T) Applications and Tolerance Stacks

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Apply Geometric Dimensioning and Tolerancing (GD&T) to your designs and perform tolerance stacks through authentic case studies.



VCPD268
Fracture Mechanics

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Gain a practical understanding of fatigue and fracture calculations using the latest methodologies, including weight function and the FAD approach



VCPD603
ASME Y14.5 Geometric Dimensioning and Tolerancing (GD&T) Design and Applications Combo Course

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Gain a comprehensive understanding of Geometric Dimensioning and Tolerancing (GD&T) and apply it to your designs and stacks per ASME Y14.5.



VCPD618
Problem-solving for Engineers: Root Cause Analysis Fundamentals

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

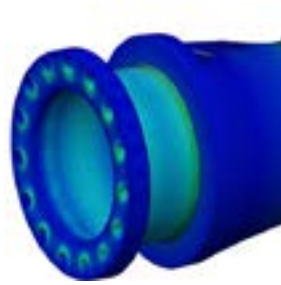
Learn root cause analysis (RCA) fundamentals, explore RCA tools' purpose and application, and perform RCA on real-world problems to find solutions.



VCPD231
Applied Shock and Vibration Analysis and Design

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Learn how to compute natural frequencies and response to dynamic forces, and designs to reduce vibration of new and existing systems.



VCPD736
Introduction to Finite Element Analysis (FEA)

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Explain and use introductory Finite Element Analysis (FEA) concepts underlying the creation of elements to make accurate approximations.

MODELING & SIMULATION VIRTUAL CLASSROOM



VCPD842
Probabilistic and Uncertainty Quantification Methods for Model Verification & Validation

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Articulate precise approximation & assumption statements, quantify the total uncertainty, and make risk-informed decisions with any model.



VCPD843
Verification & Validation of Models and Simulations Combo Course

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Verify, validate, and quantify uncertainty, assess credibility, and make risk-informed decisions for models and simulations.



VCPD841
Verification and Validation in Scientific Computing

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Learn techniques and methods for verification of numerical simulations, validation of mathematical models, and quantify uncertainty in simulations.



VCPD583
Pressure Relief Devices: Design, Sizing, Construction, Inspection & Maintenance

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Understand the design, construction, installation, operation, inspection and maintenance of pressure relieving devices.



VCPD442
ASME BPV Code, Section VIII, Division 1: Design and Construction

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Understand and apply ASME's BPV Code, Section VIII, Division 1 to pressure vessel design and construction.



VCPD077
Failure Prevention, Fitness-for-Service, Repair and Life Extension of Piping, Vessels and Tanks

PDHs: 20 CEUs: 2 Format: Virtual Classroom

Apply fitness-for-service assessment methods to make run-or-repair decisions on pressure equipment, piping and pipelines.



VCPD441
Inspection, Repair and Alterations of In-Service Pressure Equipment

PDHs: 9 CEUs: 0.9 Format: Virtual Classroom

Apply various requirements to the inspection, repair and alteration of in-service pressure vessels and equipment.



VCPD395
API 579-1/ASME FFS-1 Fitness for Service

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Apply the requirements of API 579/ASME FFS-1 to make run, repair, and replacement decisions for pressure vessels, piping, and tanks.



VCPD769
ASME/API Boilers and Fired Pressure Equipment Operation and Maintenance

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

"Gain knowledge of boiler operation and maintenance per the requirements of ASME BPVC Sections I, III, IV, VI, VII, and VIII.



VCPD839
ASME B31.1 Power Piping - Materials, Fabrication Examination, Testing, & Maintenance

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Explore the background and meet the requirements of ASME B31.1 focusing on power piping construction and maintenance.



VCPD443
ASME BPV Code, Section VIII, Division 1: Pressure Vessel Combo Course

PDHs: 32 CEUs: 3.2 Format: Virtual Classroom

Leverage the requirements of Section VIII, Div 1, including design, materials, fabrication, testing and inspection of pressure vessels.



VCPD643
ASME B31.3 Process Piping Code

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Apply the requirements of ASME B31.3 to the design, analysis, materials, fabrication, testing and inspection of process piping systems.



VCPD770
Boilers and Fired Pressure Equipment Inspection, Repairs, and Alterations Industry Best Practices

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Gain knowledge of boiler inspection and methods for repairs and alterations in compliance with ASME BPV, NBIC and API regulations.



VCPD391
ASME B31.4 Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Adhere to principles of ASME B31.4 Code for the design, construction, and operation of liquid pipeline systems while minimizing risks.



VCPD771
ASME BPVC, API and NBIC Boiler Operation, Maintenance, Inspection, Repairs, and Alterations Combo Course

PDHs: 38 CEUs: 3.8 Format: Virtual Classroom

Comply with BPVC codes to safely operate and maintain boilers throughout their lifecycle from operation & inspection to repairs & alterations.



VCPD457
ASME B31.3 Process Piping, Materials Fabrication, Examination, and Testing

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Gain project management insights and learn to apply project management methods to your career as an engineer with this virtual classroom course.

PIPING & PIPELINES VIRTUAL CLASSROOM



VCPD370
ASME B31.8 Gas Transmission & Distribution Piping Systems

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Gain an understanding of ASME B31.8 including design, operation, maintenance, and repair of natural gas distribution and transmission pipelines.



VCPD410
Detail Engineering of Piping Systems

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Develop Piping and Instrumentation Diagrams (P & IDs), plot plans, and arrangements for process, power and utility equipment piping systems.



VCPD014
ASME B31.3 Process Piping Design
 PDHs: 25 CEUs: 2.5 Format: Virtual Classroom

Understand and apply the ASME B31.3 Process Piping requirements to effectively and safely design process piping systems.



VCPD838
ASME B31.1 Power Piping Design
 PDHs: 25 CEUs: 2.5 Format: Virtual Classroom
 "Understand and apply the ASME B31.1 requirements to power piping system design and analysis including criteria, requirements and failure modes."
 "



VCPD837
ASME B31.3 and B31.1 Practical Piping Design for Process and Power Applications
 PDHs: 30 CEUs: 3 Format: Virtual Classroom

Apply the requirements of B31.3 and B31.1 to the design, analysis, materials, fabrication, testing, and inspection for process and power piping systems.



VCPD738
Fundamentals of Process Plant and Plant Layout
 PDHs: 15 CEUs: 1.5 Format: Virtual Classroom
 Learn the fundamentals of process plant and plant layout, including process flow diagrams, equipment layouts, and P&IDs with this comprehensive guide.



VCPD739
Fundamentals of Piping, Pipeline Engineering, and Pigging Systems
 PDHs: 15 CEUs: 1.5 Format: Virtual Classroom
 Master the Fundamentals of piping & pipeline engineering and pigging systems by taking ASME's professional course, from design to construction to operation.



VCPD615
Nuclear Piping Systems ASME BPV Code, Section III and B31.1: Design, Integrity-Operability Assessment, and Repairs
 PDHs: 20 CEUs: 2 Format: Virtual Classroom

Apply ASME Section III, Division 1, Subsections NB/NC/ND to the design, analysis, and qualification of nuclear power plant piping systems.



VCPD192
ASME BPV Code, Section XI: Inservice Inspection of Nuclear Power Plant Components
 PDHs: 38 CEUs: 3.8 Format: Virtual Classroom

Understand ASME Section XI rules for in-service inspection, maintenance, testing, and requirements of nuclear power plant components.



VCPD606
ASME NQA-1 Requirements for Computer Software used in Nuclear Facilities
 PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Learn to apply NQA-1 to the practice of developing, using, maintaining or procuring software used in nuclear facilities.



VCPD632
Design-by-Stress Analysis per ASME BPV Code, Section III, Division 1: Class 1, 2 and 3 Components
 PDHs: 30 CEUs: 3 Format: Virtual Classroom

Apply Appendix XIII Design by Stress Analysis per Section III, Division 1 to vessels, pumps, valves and piping in nuclear power plants.



VCPD675
ASME NQA-1 Lead Auditor Training
 PDHs: 30 CEUs: 3 Format: Virtual Classroom
 Review auditing program methods and techniques to conduct audits of nuclear quality assurance programs per ASME NQA-1 and N45.2.23 auditors.



VCPD184
ASME BPV Code Section III, Division 1: Rules for Construction of Nuclear Facility Components and USNRC Regulations

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Explore Section III, Division 1, how it interfaces with other BPVC sections, and how it is implemented by the US NRC in its regulations.

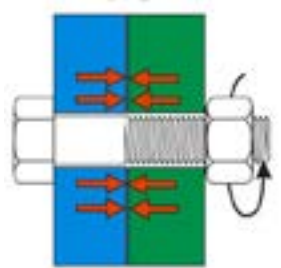


VCPD879
Bolted and Gasket Joint Fundamentals Combo Course (Virtual Classroom)

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Build your bolted and gasket joint skills and increase your knowledge of ASME PCC-1 applications in this virtual classroom course combo.

BOLTING VIRTUAL CLASSROOM



VCPD577
Bolted Joint Assembly Principles Per ASME PCC-1-2022

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Identify the principles of joint design, assembly, and reliability per ASME PCC-1 2019.



VCPD359
Practical Welding Technology

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Understand welding technology, including applicable codes and standards, principles, procedures, symbols, material selection and preheat.



VCPD386
Design of Bolted Flange Joints (Virtual Classroom)

PDHs: 8 CEUs: 0.8 Format: Virtual Classroom

Understand and apply ASME codes and standards for bolted flange joints, specifically flange design for pressure vessels and piping.



VCPD645
ASME BPV Code, Section IX: Welding, Brazing, & Fusing Qualifications

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Comply with the requirements of ASME Section IX rules for qualification of welding and brazing procedures and personnel.



VCPD601
ASME PCC-1 Bolted Joints and Gaskets Design, Assembly, and Reliability Combo Course

PDHs: 38 CEUs: 3.8 Format: Virtual Classroom

Master bolted joints and gasket design, behavior and assembly principles per ASME PCC-1 2022.



VCPD743
Applications of Welding (Virtual Classroom)

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Build foundational welding skills in this comprehensive Applications of Welding course.

FLUIDS & HEAT TRANSFER VIRTUAL CLASSROOM



VCPD539
Bolted Joints and Gasket Behavior

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Understand bolted joint fundamentals and gasketed joint torque factors, bolting patterns, and gasket behavior, tightness, selection and specification.



VCPD146
Flow Induced Vibration with Applications to Failure Analysis

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Learn and apply the latest design and analysis tools for the prediction and prevention of vibration in structures exposed to high energy fluid flow.



VCPD467

Project Management for Engineers and Technical Professionals

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Apply key PMI project management concepts, including big-picture thinking, repeatable processes, and increased efficiency.



VCPD836

Traditional and Agile Project Management for Engineers and Technical Professionals Combo Course

PDHs: 38 CEUs: 3.8 Format: Virtual Classroom

Learn both traditional and agile project management methodologies and gain a robust skillset for every engineering project or situation.



VCPD676

Strategic Thinking and Strategic Communication for Engineers

PDHs: 8 CEUs: 0.8 Format: Virtual Classroom

"Develop a strategic mindset, approach challenges with innovation and employ strategic thinking and communication to add value to your organization."



VCPD513

TRIZ: The Theory of Inventive Problem Solving

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Create breakthrough innovations by leveraging patterns documented in the world's most inventive patents with TRIZ.



VCPD475

The Engineering Manager: Engaging Today's Workforce

PDHs: 15 CEUs: 2.5 Format: Virtual Classroom

Implement essential management skills, tackle common challenges engineering managers encounter and reach high levels of performance.



VCPD794

Agile Project Management

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Build critical knowledge of Agile guidelines from PMI / PMBOK, including hitting results in minimum time and the "fail fast" mantra.

NEW ON DEMAND LEARNING PATHS

Learning Paths offer a combination of courses organized by our team into a recommended learning sequence.

CHOOSE FROM COURSES ON Y14.5 GEOMETRIC DIMENSIONING & TOLERANCING (GD&T), BPVC SECTION VIII, B31 POWER & PROCESS PIPING, NUCLEAR POWER PLANT COMPONENTS, AND MORE



LP107
ASME Y14.5 Geometric Dimensioning and Tolerancing (GD&T) Fundamentals Learning Path

PDHs: 38 CEUs: 3.5 Format: Learning Path

This ASME Geometric Dimensioning and Tolerancing (GD&T) Learning Path consisting of 3 On Demand courses where students learn read and create engineering drawings and interpret design intent per ASME Y14.5.



LP110
Design, Fabrication and Fitness-for Service of Pressure Equipment Learning Path

PDHs: 29 CEUs: 2.9 Format: Learning Path

Design, Fabrication, & Understand the Design, Fabrication, & Fitness-for Service of Pressure Equipment requirements via ASME's on-demand Learning Path via ASME's Learning Hub.



LP115
ASME GD&T Essentials Codes and Courses Package

PDHs: 38 CEUs: 3.5 Format: Learning Path

Enhance your career with geometric dimensioning & tolerancing (GD&T) with a comprehensive package of training, standards, & certification guidelines with ASME.



LP111
ASME Codes and Standards Overview Learning Path

PDHs: 29 CEUs: 0 Format: Learning Path

Learn about ASME Codes & Standards in this self-paced learning path. Gain the knowledge to work with ASME Codes & Standards in your respective fields.

DESIGN, MATERIALS & ANALYSIS LEARNING PATH



LP103
Design for Additive Manufacturing with Metals Case Studies Package

PDHs: 6 CEUs: 0.6 Format: Learning Path

Apply Additive Manufacturing design concepts with three common AM use cases: Replication, Adaptation, and Optimization.



LP113
ASME BPV Code, Section VIII, Division 1 and 2 Learning Path

PDHs: 32 CEUs: 3.2 Format: Learning Path

Learn & adapt the principles of ASME BPV Code, Section VIII: Divisions 1 & 2 with ASME's online learning path. Get a great learning experience with ASME courses.

PIPING & PIPELINES LEARNING PATH



LP102
Design for Additive Manufacturing with Metals Professional Package

PDHs: 20 CEUs: 2 Format: Learning Path

Discover Additive Manufacturing's role in the design of products, parts and components in ASME's Design for Additive Manufacturing with Metals Learning Path.



LP108
Design and Analysis of Piping Systems and Operability Assessment of Nuclear Power Plant Components Learning Path

PDHs: 42 CEUs: 4.2 Format: Learning Path

Understand the design and analysis of piping systems and operability assessment of Nuclear Power Plant components consistent with ASME BPV Code, Section III and B31.1 and Section XI.

BOILERS & PRESSURE VESSELS LEARNING PATH



LP106
ASME BPV Code, Section VIII, Division 1: Pressure Vessel Learning Path

PDHs: 22 CEUs: 2.2 Format: Learning Path

Gain a comprehensive understanding of Section VIII, Div 1, requirements including design, materials, fabrication, testing and inspection of pressure vessels in this On Demand Learning Path



LP101
ASME B31 Process and Power Piping Design

PDHs: 28 CEUs: 3 Format: Learning Path

Understand the principles of ASME's B31 piping design code and apply best practices to process and power piping systems in ASME's B31 Process and Power Piping Design Learning Path.



LP117
ASME B31.8 Gas Transmission Piping System Code and Course Package

PDHs: 24.5 CEUs: 2.5 Format: Learning Path

The ASME B31.8 Gas Transmission Distribution & Piping Systems Code & Course Package includes access to ASME's on demand gas transmission course & the B31.8 Code.



LP116
ASME B31.3 Process Piping Code and Course Package

PDHs: 26 CEUs: 4 Format: Learning Path

The ASME B31.3 Process Piping Code and Course Package includes everything needed to get started with ASME B31.3. Gain access to our on demand process piping course and the full B31.3 Process Piping Code all in one package.



LP114
Process Piping, Welding, Brazing, and Fusing Learning Path

PDHs: 54.4 CEUs: 5.4 Format: Learning Path

Understand the requirements of ASME B31.3 Process Piping Code for analysis, testing & inspection of process piping systems and BPVC Section IX - Welding, Brazing, and Fusing Qualifications.



LP118
ASME PCC-1 Bolting Assembler Fundamentals Learning Path

PDHs: 17.5 CEUs: 1.9 Format: Learning Path

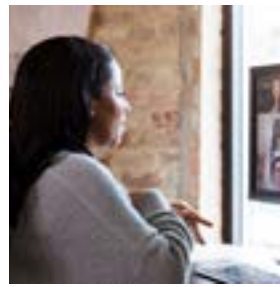
Access all four levels of ASME's Bolted Flange Joint Assembly Program



LP104
Industrial Automation with Robotics

PDHs: 14 CEUs: 1.4 Format: Learning Path

Determine if industrial automation with robotics is a viable technological solution to improve an existing industrial production process in ASME's Industrial Automation with Robotics Learning Path.



LP105
Ethics and Communication for Engineers

PDHs: 7 CEUs: 0 Format: Learning Path

Master critical communication skills and work through real world examples of ethical dilemmas for engineers in ASME's Ethics and Communication for Engineers Learning Path.



LP119
Innovative Problem Solving for Engineers Learning Path

PDHs: 45 CEUs: 4.5 Format: Learning Path

This learning path is designed to equip you to identify and resolve problems using Theory of Inventive Problem Solving (TRIZ) and Root Cause Analysis (RCA).

GUIDED STUDY COURSES

Online learning augmented with instructor-led activities and/or graded assignments to complete at your own pace. Courses run in 6-week sessions.

BUILD IN-DEMAND SKILLS AND LEARN HOW TO
SOLVE REAL-WORLD CHALLENGES ON YOUR OWN
SCHEDULE



EL506
Advanced Geometric Dimensioning and Tolerancing (GD&T) - Y14.5

PDHs: 23 CEUs: 2.3 Format: Guided Study

Gain advanced knowledge of geometric dimensioning controls for mechanical engineering drawings per the ASME Y14.5 Dimensioning and Tolerancing standard.



EL505
Introduction to Geometric Dimensioning & Tolerancing (GD&T) - Y14.5

PDHs: 23 CEUs: 2.3 Format: Guided Study

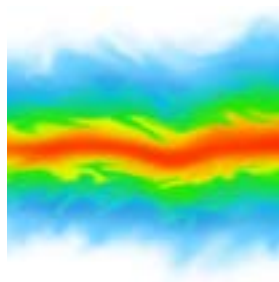
Learn introductory geometric dimensioning controls for mechanical engineering drawings per ASME Y14.5 Dimensioning and Tolerancing standard.



EL515
Principles of Welding

PDHs: 18 CEUs: 1.8 Format: Guided Study

Understand introductory principles of welding technology, process of welding and how it affects welded materials and structures.



EL513
Introduction to Computational Fluid Dynamics

PDHs: 23 CEUs: 2.3 Format: Guided Study

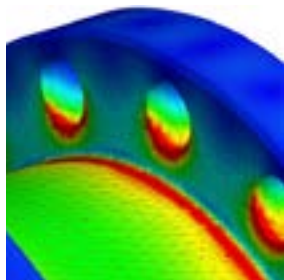
Gain an introduction to the principles and applications of CFD and apply the knowledge into use on commercial CFD codes, particularly ANSYS Fluent.



EL507
Introduction to Finite Element Analysis

PDHs: 23 CEUs: 2.3 Format: Guided Study

Explain and use introductory Finite Element Analysis (FEA) concepts underlying the creation of elements to make accurate approximations.



EL508
Advanced Finite Element Analysis

PDHs: 18 CEUs: 1.8 Format: Guided Study

Identify and demonstrate advanced Finite Element Analysis (FEA) skills including command-line input for Abaqus and design optimization in Abaqus



EL511
Project Management for Engineers

PDHs: 23 CEUs: 2.3 Format: Guided Study

Learn engineering project management skills including planning and implementing projects, communication strategies and overcoming lack of resources and impediments.



EL512
The Bolted Joint

PDHs: 23 CEUs: 2.3 Format: Guided Study

Learn the fundamentals of bolts and bolted joints, including their strength, behavior, design approaches and failure prevention.

SELF STUDY COURSES

Online learning augmented with instructor-led activities and/or graded assignments to complete at your own pace. Courses run in 6-week sessions.

BUILD IN-DEMAND SKILLS AND LEARN HOW TO
SOLVE REAL-WORLD CHALLENGES ON YOUR
OWN SCHEDULE



EL559
ASME Y14.5-2018 – GD&T Fundamentals
(On Demand)

PDHs: 12 CEUs: 1.2 Format: Self Study

Read and create engineering drawings and interpret design intent per the latest version of ASME Y14.5 - Geometric Dimensioning and Tolerancing (GD&T) in this On Demand course.



EL560
Drawing Interpretation (GD&T)

PDHs: 23 CEUs: 2.3 Format: Self Study

Understand basic mechanical two-dimensional engineering drawings, drawing elements, part and section views, dimensions, tolerances, finish and welding symbols.



AM214
Additive Manufacturing Manufacturability:
Laser Powder Bed Fusion

PDHs: 4 CEUs: 0.4 Format: Self Study

Prepare for part manufacturability with Laser Powder Bed fusion (L-PBF).



ZABC73
Y14.5-2018 Dimensioning and Tolerancing
(GD&T) Overview

PDHs: 3 CEUs: 0 Format: Self Study

Overview of the contents and guidelines outlined in the ASME Y14.5 - 2018 Dimensioning and Tolerancing Standard.



AM223
Additive Manufacturing Material Properties

PDHs: 5 CEUs: 0.5 Format: Self Study

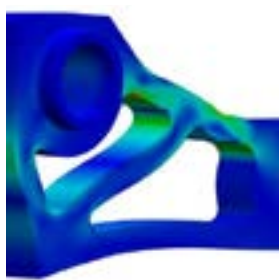
Understand materials properties for L-PBF parts including variability in material properties and how to account for this variability.



AM210
Design for Additive Manufacturing with Metals

PDHs: 10 CEUs: 1 Format: Self Study

Learn key foundational knowledge to design for Additive Manufacturing (AM) with metals.



EL574
Fracture Mechanics (On Demand)

PDHs: 24.5 CEUs: 2.5 Format: Self Study

Gain project management insights and learn to apply project management methods to your career as an engineer with this online course.



EL578
Additive Manufacturing Design Advantages
& Limitations

PDHs: 22 CEUs: 2.2 Format: Self Study

ASME's on-demand course covers the fundamental aspects of design for additive manufacturing (DfAM) and the mindset needed to design this way.



EL566
Design for Sustainability

PDHs: 0.5 CEUs: 0 Format: Self Study

Sustainability is the practice of using resources in a way that preserves the environment and supports society.



EL556
ASME BPV Code, Section VIII, Division 2:
Design & Fabrication of Pressure Vessels
(On Demand)

PDHs: 17 CEUs: 1.7 Format: Self Study

Understand and use the alternative rules for the design and fabrication of pressure vessels per Section VIII, Division 2 in this On Demand Course.



EL565
API 579-1/ASME FFS-1 Fitness-For-Service Evaluation (On Demand)

PDHs: 23 CEUs: 2.3 Format: Self Study

Apply the requirements of API 579/ASME FFS-1 to make run, repair, and replacement decisions for pressure vessels, piping, and tanks.



ZABC9
ASME Boiler & Pressure Vessel Certification Process

PDHs: 3 CEUs: 0 Format: Self Study

Learn about ASME Conformity Assessment, the process for ASME Certification, and the requirements for obtaining non-nuclear Code Stamps



ZABC17
ASME BPV Code, Section V: Nondestructive Examination Overview

PDHs: 3 CEUs: 0 Format: Self Study

Learn about the various applications of ASME BPV, Section V - Nondestructive Examination (NDE).



EL563
Pressure Relief Devices: Design, Sizing, Construction, Inspection & Maintenance (On Demand)

PDHs: 23 CEUs: 2.3 Format: Self Study

Gain a comprehensive overview of the design, construction, installation, operation, inspection and maintenance of pressure relieving devices.



ZABC59
ASME PCC-2 Repair of Pressure Equipment & Piping Overview

PDHs: 2 CEUs: 0 Format: Self Study

Review the contents of ASME's PCC-2 Standard, and learn about the repair of pressure equipment and piping.



EL587
ASME/API Boilers and Fired Pressure Equipment Operation and Maintenance (On Demand)

PDHs: 20.5 CEUs: 2.1 Format: Self Study

This On Demand course covers boiler inspection and methods for repairs and alterations in compliance with ASME BPV, NBIC, and API regulations.

PIPING & PIPELINES SELF STUDY



EL555
Inspection, Repair, and Alterations of In-Service Pressure Equipment (On Demand)

PDHs: 7 CEUs: 0.7 Format: Self Study

Apply various requirements to the inspection, repair and alteration of in-service pressure vessels and equipment in this On-Demand course.



ZABC15
ASME B31.3 Process Piping Code Overview (Online Course)

PDHs: 2 CEUs: 0 Format: Self Study

Introduction to the B31.3 Process Piping Code, how piping systems function and what the Code requirements are for various types of installations.



EL554
Introduction to ASME BPV Code, Section VIII, Division 1 (On Demand)

PDHs: 21 CEUs: 2.1 Format: Self Study

Understand and apply ASME's BPV Code, Section VIII, Division 1 to pressure vessel design and construction in this On Demand course.



ZABC12
ASME B31.8 Gas Transmission and Distribution Piping Systems Overview

PDHs: 2 CEUs: 0 Format: Self Study

Overview of the scope of B31.8, including its history, the types of systems to which it applies, its organization, and the intended use of the Code



ZABC14
ASME B31.1 Power Piping Code Overview
(Online Course)

PDHs: 2 CEUs: 0 Format: Self Study

Introduction to the B31.1 Power Piping Code, and its relationship with ASME BPV Code, Section I



EL558
ASME B31.3 Process Piping Code
(On Demand)

PDHs: 24 CEUs: 2.4 Format: Self Study

Understand requirements of the ASME B31.3 Process Piping Code for the analysis, testing & inspection of process piping systems in this on-demand training.



EL569
ASME B31.8 Gas Transmission & Distribution
Piping Systems (On Demand)

PDHs: 24.5 CEUs: 2.5 Format: Self Study

B31.8 Gas Transmission & Distribution Piping Systems on-demand course covers ASME Code B31.8, including piping code provisions, principal intentions, & usage.



EL575
Introduction to ASME B31.12 Hydrogen Piping
and Pipelines

PDHs: 20 CEUs: 2 Format: Self Study

This introductory course will provide participants with an overview of the ASME B31.12 code, including its structure and the scope of its main sections.



EL576
Advanced ASME B31.12 Hydrogen Piping and
Pipelines (On Demand)

PDHs: 40 CEUs: 4 Format: Self Study

This comprehensive, video-based course provides participants with an overview of the ASME B31.12 Code as it relates to the design and construction of safe and economical Hydrogen Piping and Pipeline Systems.



ZABC29
NQA-1 Practical Application

PDHs: 4 CEUs: 0 Format: Self Study

Review practical application of NQA-1 focusing on five of the principal requirements.



ZABC5
NQA-1 Part 1 – 18 QA Requirements

PDHs: 4 CEUs: 0 Format: Self Study

Overview of the ASME NQA-1 Nuclear Quality Assurance Standard and an in-depth look at Part I



EL548
Failure Prevention, Fitness-for-Service, Repair
and Life Extension of Piping, Vessels
and Tanks

PDHs: 14 CEUs: 1.4 Format: Self Study

Learn methods and criteria of ASME B31, ASME VIII, API 579-1/ ASME FFS-1, ASME PCC-2, NBIC parts 2 and 3, to make run-or-repair decisions on pressure equipment, piping and pipelines



EL549
ASME BPV Code, Section XI: Inservice
Inspection of Nuclear Power
Plant Components

PDHs: 27 CEUs: 2.7 Format: Self Study

Understand ASME Section XI rules for in-service inspection, maintenance, testing, and the regulatory requirements of nuclear power plant components.



EL580
ASME PCC-1 Level 3 Bolting Assembler
Fundamentals (On Demand)

PDHs: 4.5 CEUs: 0.5 Format: Self Study

Learn concepts related to manual tightening for bolted flange joints and pre, in-process, and post assembly quality assurance per ASME PCC-1 Appendix A.



EL579
ASME PCC-1 Level 2 Bolting Assembler Fundamentals (On Demand)

PDHs: 5 CEUs: 0.5 Format: Self Study

ASME PCC-1 Level 2 Bolting Assembler Fundamentals is designed to train & evaluate a bolter's ability to inspect & assemble bolted flange joints effectively & safely.



EL581
ASME PCC-1 Level 4 Bolting Assembler Fundamentals (On Demand)

PDHs: 4.5 CEUs: 0.5 Format: Self Study

Learn to develop procedures and provide detailed guidance to bolted flange joint programs and activities.



EL568
ASME PCC-1 Level 1 Bolting Assembler Fundamentals (On Demand)

PDHs: 3.5 CEUs: 0.4 Format: Self Study

ASME PCC-1 Level 1 Bolting Assembler Fundamentals is designed to train & evaluate a bolter's ability to inspect & assemble bolted joints effectively & safely.

FLUIDS & HEAT TRANSFER SELF STUDY


ZABC43
Introduction to the Selection of Valves

PDHs: 2 CEUs: 0 Format: Self Study

Overview of the considerations involved when choosing the appropriate valves for a system



ZABC42
Introduction to the Selection of Pumps

PDHs: 2 CEUs: 0 Format: Self Study

Introduction to pumps – the way they work, different types, and some basic applications



EL562
ASME BPV Code, Section IX: Welding, Brazing, & Fusing Qualifications (On Demand)

PDHs: 30.5 CEUs: 3 Format: Self Study

Learn about ASME's BPV Code Section IX welding, brazing & fusing qualifications with ASME e-learning. Enroll now to advance your skills and expertise.

BIOPROCESS SELF STUDY


ZABC13
Bioprocessing Equipment (BPE) Overview

PDHs: 2 CEUs: 0 Format: Self Study

Learn how this ASME BPE Standard has improved the manufacturing practices of the bioprocessing and pharmaceutical industries.

GAS TURBINES SELF STUDY


EL540
Basic Gas Turbine Engine Technology

PDHs: 10 CEUs: 0 Format: Self Study

Review the fundamental nature of gas turbine engines and the processes that affect their performance

MANAGEMENT, LEADERSHIP & INNOVATION SELF STUDY


EL570
Problem-solving for Engineers: Root Cause Analysis Fundamentals (On Demand)

PDHs: 20.5 CEUs: 2.1 Format: Self Study

Explore root cause analysis fundamentals and tools while learning to apply root cause analysis to real-world problems.



EL584
Agile Project Management (On Demand)

PDHs: 14.5 CEUs: 1.5 Format: Self Study

The course is a parallel to Predictive or Traditional project management for technical professionals. The goal is to share the mentality, value, principles and some practices of the Agile project management methods so that they may be used in conjunction with current practices.



EL577
Project Management for Engineers and Technical Professionals (On Demand)

PDHs: 22.5 CEUs: 2.3 Format: Self Study

Gain project management insights and learn to apply technical project management methods to your career as an engineer with this online course.



EL567
TRIZ: The Theory of Inventive Problem Solving (On Demand)

PDHs: 24.5 CEUs: 2.5 Format: Self Study

Learn TRIZ: the Theory of Inventive Problem Solving with ASME. Leverage this approach to innovation to help you discover breakthrough solutions to problems.



ZABC3
Ethics for Engineers: Doing the Right Thing When No One is Looking

PDHs: 3 CEUs: 0 Format: Self Study

Review the professional code of ethics that shapes engineering principles and identify your ethical concerns.



ZABC2
Technical Writing for Engineers: Giving Readers What They Need

PDHs: 4 CEUs: 0 Format: Self Study

Learn techniques to cater your technical documents to a broad audience.



ZABC101
Introduction to ASME Standards & Certification

PDHs: 2 CEUs: 0 Format: Self Study

Introduction to standards: why we have them, the process for creating them, and who is responsible for maintaining them



EL557
Data Cleansing for Data Analytics

PDHs: 4 CEUs: 0 Format: Self Study

Data cleansing to reduce the noise data into reliable insights with Data Cleansing for Data Analytics on-demand course. Enroll now in the ASME e-learning.

RISK & RELIABILITY SELF STUDY



EL564
Overview of QPS (Quality Program for Suppliers) General Industry

PDHs: 10 CEUs: 0.1 Format: Self Study

Understand the requirements that are needed to complete QPS (Quality Program for Suppliers) Certification. Enhance your skills & knowledge with ASME eLearning.

ROBOTICS SELF STUDY



RB210
Assessing Suitability for Robotics in Manufacturing: A Case Study

PDHs: 10 CEUs: 1 Format: Self Study

Review, select, and plan the successful integration of a robot to automate a portion of an industrial process through a real-world case study.



IAR212
Six Axis Robot Arm

PDHs: 2 CEUs: 0.2 Format: Self Study

Learn key foundational knowledge, specifications, requirements, and operations of 6 Axis robot arms.



IAR211
Fundamentals of Industrial Automation

PDHs: 2 CEUs: 0.2 Format: Self Study

Understand the techniques used in industrial automation with robotics and make suggestions for appropriate types of robotics hardware.

IN PERSON LEARNING

In Person learning is available for individuals and teams. To register for in person courses for your personal professional development please visit go.asme.org/inperson

To learn more about getting in person training for your team, contact learningsolutions@asme.org or visit go.asme.org/corporatetraining

LEARN HOW WE CAN HELP YOU ACHIEVE YOUR WORKFORCE DEVELOPMENT GOALS:

Contact learningsolutions@asme.org
or visit go.asme.org/evolve