

# 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](mailto:learningsolutions@asme.org) to get a quote for ASME Corporate Training.

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# 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).

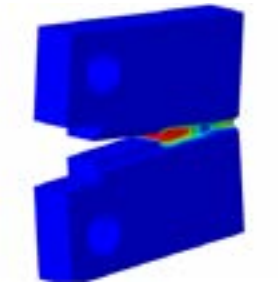


VCPD737  
**Geometric Dimensioning and Tolerancing (GD&T): Basic to Intermediate Level (Virtual Classroom)**  
PDHs: 23   CEUs: 2.3   Format: Virtual Classroom  
LAcquire skills and knowledge through training in this GD&T course per the ASME Y14.5 Standard

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.

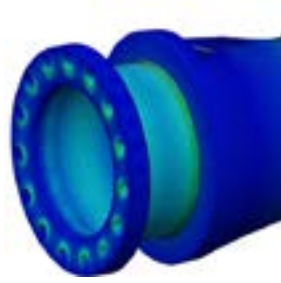




**VCPD231**  
**Applied Shock and Vibration Analysis and Design**

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 &amp; 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 BPVC 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 BPVC, 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 &amp; 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.

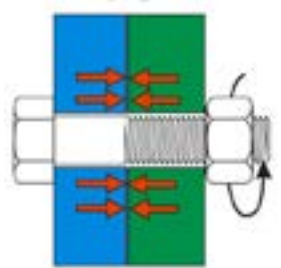


VCPD879  
**Bolted and Gasket Joint Fundamentals  
Combo Course (Virtual Classroom)**

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**

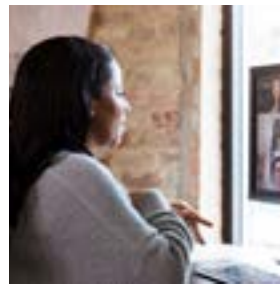
Access all four levels of ASME's Bolted Flange Joint Assembly Program



**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**

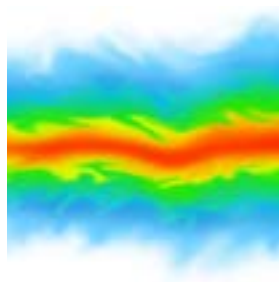
Learn introductory geometric dimensioning controls for mechanical engineering drawings per ASME Y14.5 Dimensioning and Tolerancing standard.



**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**

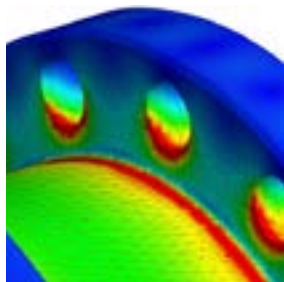
Gain an introduction to the principles and applications of CFD and apply the knowledge into use on commercial CFD codes, particularly ANSYS Fluent.



**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.

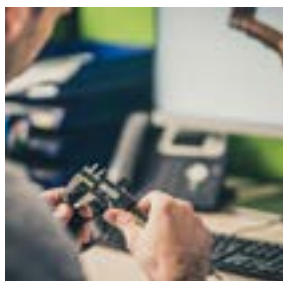
DESIGN, MATERIALS & ANALYSIS SELF STUDY



**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**

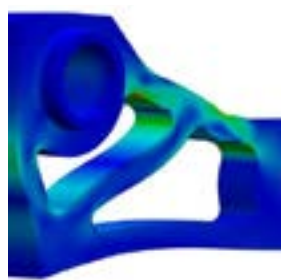
Understand materials properties for L-PBF parts including variability in material properties and how to account for this variability.



**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.

BOILERS & PRESSURE VESSELS SELF STUDY



**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 &amp; 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](https://go.asme.org/inperson)

To learn more about getting in person training for your team, contact [learningsolutions@asme.org](mailto:learningsolutions@asme.org) or visit [go.asme.org/corporatetraining](https://go.asme.org/corporatetraining)

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

Contact [learningsolutions@asme.org](mailto:learningsolutions@asme.org)  
or visit [go.asme.org/evolve](https://go.asme.org/evolve)