ASME LEARNING & DEVELOPMENT

CORPORATE TRAINING COURSE CATALOG 2024-2025

Live and On Demand courses
from top engineering experts

ASME L&D LEARNING & DEVELOPMENT

ASME LEARNING & DEVELOPMENT

Training for Engineering Transformation

In the last century alone, the engineering industry has boldly brought us through several industrial revolutions. Great engineering achievements have positively impacted humankind. But as remarkable as these innovations are, there are many more engineering opportunities to be realized.

At ASME Learning and Development (L&D), our mission is to advance the skills and grow careers of engineering professionals and their teams. Our vision is to empower the global engineering community to solve the challenges of today and tomorrow.

Your Workforce Development Resource

ASME Learning and Development has been collaborating with engineering organizations to aid in their professional development initiatives for decades. ASME Corporate Training can upskill your team and solve for your organization's unique needs. From working with you to standardize your business processes with best practices and boosting productivity to improving employee engagement, we can help you maximize the potential of your workforce all while growing your organization's competitive edge.

Flexible Training for Your Team

Work with ASME Corporate Training to create a comprehensive learning solution for your workforce, built from our broad range of courses, learning paths and credentials. With technical and non-technical topics available in a variety of formats, including live and on demand, we collaborate with you to create a professional development learning solution based on your workforce's unique schedules, preferences, responsibilities and aspirations.

Top Industry Experts

Our team of accomplished educators, with years of technical knowledge and experience, focus on you and your organization to provide targeted world-class professional engineering instruction. All of our educators are ASME-approved and meet IACET accreditation requirements. Many also serve as ASME Code Committee members and/or volunteers. Our top educators can also deliver learning experiences globally, often in multiple languages.

CONTENTS

ASME Virtual Classroom

Learning Path

Guided Study

Self Study

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.

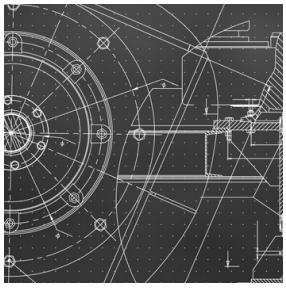
With thousands of hours of successful virtual instruction already logged, ASME Learning & Development is poised to provide you with training you can trust.

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"

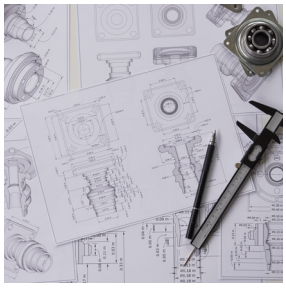
GEOMETRIC DIMENSIONING & TOLERANCING VIRTUAL CLASSROOM



VCPD570
Geometric Dimensioning & Tolerancing 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).



VCPD561
Geometric Tolerancing Applications and Tolerance Stacks

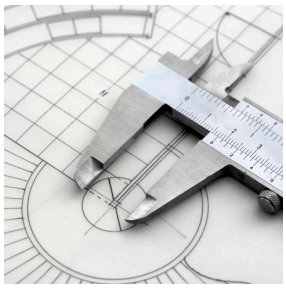
PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

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

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.

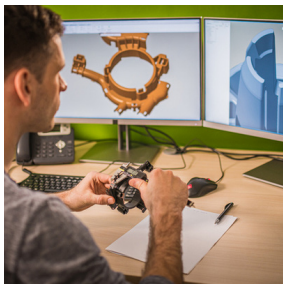


VCPD866
Geometric Dimensioning and Tolerancing for Quality, Inspection and Reporting

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.

DESIGN, MATERIALS & ANALYSIS VIRTUAL CLASSROOM



VCPD734
ASME Y14.5 GD&T Fundamentals Training

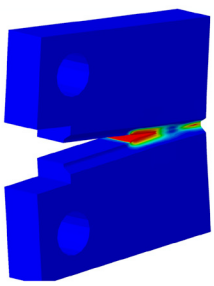
PDHs: 22.5 CEUs: 2.3 Format: Virtual Classroom

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

VCPD736
Fundamentals of Finite Element Analysis

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.



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 functions and the FAD approach

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.

VCPD673
Design and Selection of Heat Exchangers

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

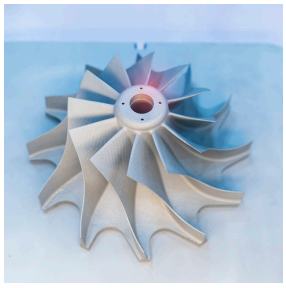
Select and size heat exchangers for a given duty with various methods of analysis, advantages & disadvantages, and design considerations.

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.

DESIGN, MATERIALS & ANALYSIS VIRTUAL CLASSROOM



VCPD865
Additive Manufacturing: Laser Powder Bed Fusion

PDHs: 18 CEUs: 1.8 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.

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.

BOILERS & PRESSURE VESSELS VIRTUAL CLASSROOM

VCPD395
IAPI 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.

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.

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.

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.

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.

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.

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.

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.

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.

PIPING & PIPELINES VIRTUAL CLASSROOM

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.

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 design, analysis, materials, fabrication, testing, and inspection for process and power 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.

VCPD643
ASME B31.3 Process Piping Code

PDHs: 30 CEUs: 3 Format: Virtual Classroom

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

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

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

Explore materials, fabrication, examination, and testing per the requirements of ASME B31.3 Process Piping.

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.

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

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.

VCPD763
Centrifugal Pumps: Testing, Design, and Analysis

PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Understand and apply key principles, design methods, and analysis strategies related to centrifugal pumps for piping systems and pipelines.

PIPING & PIPELINES VIRTUAL CLASSROOM

VCPD370
ASME B31.8 Gas Transmission & Distribution Piping Systems

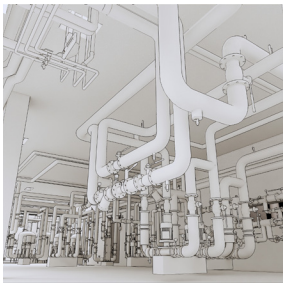
PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

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

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.



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.

VCPD777
Pipe Sizing, Pipe Wall Stresses, and Water Hammer

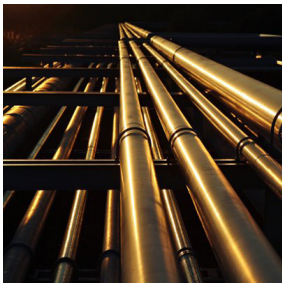
PDHs: 23 CEUs: 2.3 Format: Virtual Classroom

Understand the relationship between pipe wall stresses and the changes in fluid pressure and velocity to predict and prevent pipe wall failure.

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

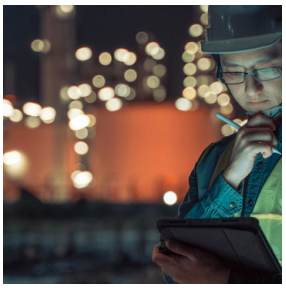
Master the Fundamentals of piping & pipeline engineering and pigging systems by taking ASME's professional course, from design to construction to operation.

NUCLEAR VIRTUAL CLASSROOM

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.



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.

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.

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.

FLUIDS & HEAT TRANSFER VIRTUAL CLASSROOM

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.

VCPD679
Fundamentals of Pumps and Valves and Their Selection for Optimum System Performance

PDHs: 30 CEUs: 3 Format: Virtual Classroom

Learn the fundamentals, selection, installation, operation, maintenance, and troubleshooting of pumps and valves.

WELDING & BRAZING VIRTUAL CLASSROOM

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.

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.

BOLTING VIRTUAL CLASSROOM

VCPD386
Design of Bolted Flange Joints

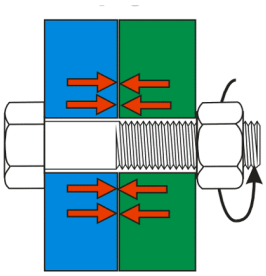
PDHs: 8 CEUs: 0.8 Format: Virtual Classroom

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

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.



VCPD577
Bolted Joint Assembly Principles Per ASME PCC-1-2019

PDHs: 15 CEUs: 1.5 Format: Virtual Classroom

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

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 2019.

MANAGEMENT, LEADERSHIP & INNOVATION VIRTUAL CLASSROOM

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: 1.5 Format: Virtual Classroom

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

MANAGEMENT, LEADERSHIP & INNOVATION VIRTUAL CLASSROOM

VCPD676
Strategic Thinking in Times of Change

PDHs: 8 **CEUs: 0.8** **Format: Virtual Classroom**

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

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.

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.

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.

ENGINEERING WORKPLACE ESSENTIALS VIRTUAL CLASSROOM

VCPD850
Communicating and Problem Solving for Today's Engineering

PDHs: 15 **CEUs: 1.5** **Format: Virtual Classroom**

Bridge the communications gap and navigate all business situations more effectively with key interpersonal skills.

VCPD851
Managing Others in Times of Change

PDHs: 15 **CEUs: 1.5** **Format: Virtual Classroom**

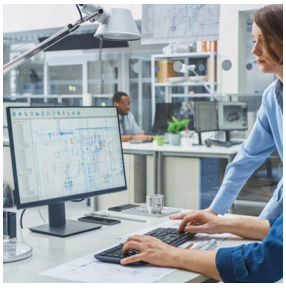
Reduce the impact of accelerated change, influence others and mitigate common leadership challenges.

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

GEOMETRIC DIMENSIONING & TOLERANCING LEARNING PATH



LP107

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

PDHs: 38 CEUs: 3.5 Format: Learning Path

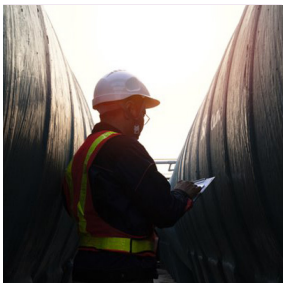
This ASME Geometric Dimensioning and Tolerancing (GD&T) Learning Path consisting of 3 On Demand courses where students learn read and create engineering drawings and interpret design intent per ASME Y14.5.

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.



LP110

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

PDHs: 29 CEUs: 2.9 Format: Learning Path

Design, Fabrication, & Fitness-for Service of Pressure Equipment ASME's on-demand Learning Path. Self-study eLearning courses accessible via ASME's Learning Hub

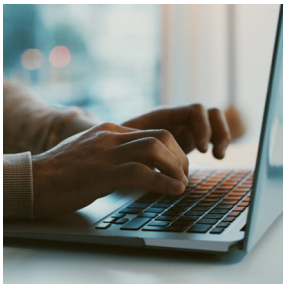
LP108

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

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.

ENGINEERING WORKPLACE ESSENTIALS LEARNING PATH



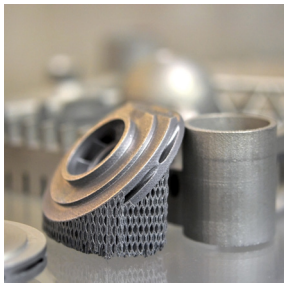
LP112

ASME Self Study All Access Learning Path

PDHs: 290.5 CEUs: 24 Format: Learning Path

Enhance your skills and knowledge with these ASME Codes and Standards eLearning courses in this ASME Self-Study All Access Learning Path.

DESIGN, MATERIALS & ANALYSIS LEARNING PATH



LP103

Design for Additive Manufacturing with Metals Use Cases Package

PDHs: 6 CEUs: 0.6 Format: Learning Path

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

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

PIPING & PIPELINES LEARNING PATH

LP101

Design for Additive Manufacturing with Metals Case Studies Package

PDHs: 14 CEUs: 1 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.

ROBOTICS LEARNING PATH

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.

LP111

ASME Self Study All Access Learning Path

PDHs: 290.5 CEUs: 24 Format: Learning Path

Enhance your skills and knowledge with these ASME Codes and Standards eLearning courses in this ASME Self-Study All Access Learning Path.

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

GEOMETRIC DIMENSIONING & TOLERANCING GUIDED STUDY

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

PDHs: 23 CEUs: 2.3 Format: Guided Study

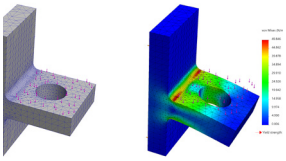
Learn introductory geometric dimensioning controls for mechanical engineering drawings per ASME Y14.5 Dimensioning and Tolerancing standard.

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.

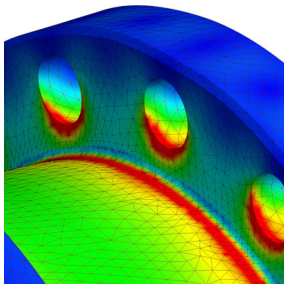
DESIGN, MATERIALS & ANALYSIS GUIDED STUDY



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: 23 CEUs: 2.3 Format: Guided Study

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

BOILERS & PRESSURE VESSELS GUIDED STUDY

EL501
ASME BPV Code, Section VIII, Division 1: Design & Fabrication of Pressure Vessels

PDHs: 23 CEUs: 2.3 Format: Guided Study

Learn the rules for pressure vessel design and construction, with an overview of the requirements of Section VIII, Division 1.

EL502
ASME BPV Code, Section VIII, Division 2: Design & Fabrication of Pressure Vessels

PDHs: 23 CEUs: 2.3 Format: Guided Study

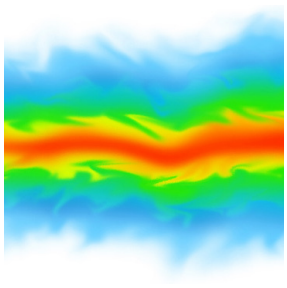
Describe the use of alternative rules for the design and fabrication of pressure vessels given in ASME BPV Code, Section VIII, Division 2.

FLUIDS & HEAT TRANSFER GUIDED STUDY

EL503
Overview of In-service Codes for Inspections, Repairs and Alterations of Pressure Equipment

PDHs: 15 CEUs: 1.5 Format: Guided Study

Understand the requirements of inspection, repairs and alterations of pressure equipment per NBIC, API-510, and API-579.



EL513
Computational Fluid Dynamics

PDHs: 23 CEUs: 2.3 Format: Guided Study

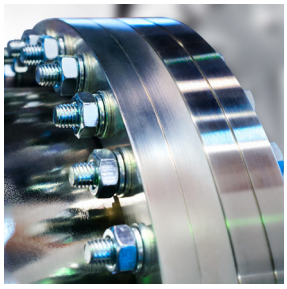
Gain an introduction to the principles and applications of CFD and apply the knowledge into use on commercial CFD codes, particularly ANSYS Fluent.

BOLTING GUIDED STUDY

EL510
Two Phase Flow and Heat Transfer

PDHs: 23 CEUs: 2.3 Format: Guided Study

Gain a phenomenological understanding of two-phase flow and heat transfer in engineering processes and components and compute two-phase flow and heat transfer.



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.

EL515

Principles of Welding

PDHs: 23 CEUs: 2.3 Format: Guided Study

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

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.

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GEOMETRIC DIMENSIONING & TOLERANCING SELF STUDY

EL559
ASME GD&T Fundamentals / ASME Y14.5 - 2018 Course (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

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.

ZABC73
Y14.5-2018 Dimensioning and Tolerancing Overview

PDHs: 3 **Format: Self Study**

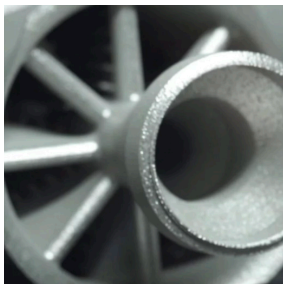
Overview of the contents and guidelines outlined in the ASME Y14.5 - 2009 Dimensioning and Tolerancing Standard

DESIGN, MATERIALS & ANALYSIS SELF STUDY

AM210
Design for Additive Manufacturing with Metals

PDHs: 10 **CEUs: 1** **Format: Self Study**

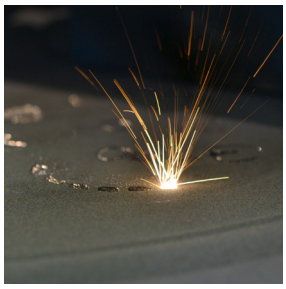
Learn key foundational knowledge to design for Additive Manufacturing (AM) with metals.



AM214
Additive Manufacturability: Laser Powder Bed Fusion

PDHs: 4 **CEUs: 0.4** **Format: Self Study**

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



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.

BOILERS & PRESSURE VESSELS SELF STUDY

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

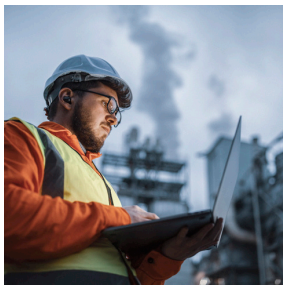
PDHs: 15 **CEUs: 1.5** **Format: Self Study**

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

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.



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.

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

ZABC17
Essentials - BPV Code, Section V: Nondestructive Examination

PDHs: 3 **Format: Self Study**

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

ZABC59
Essentials - PCC-2 Repair of Pressure Equipment & Piping

PDHs: 3 **Format: Self Study**

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

PIPING & PIPELINES SELF STUDY

ZABC9
ASME Boiler & Pressure Vessel Certification Process

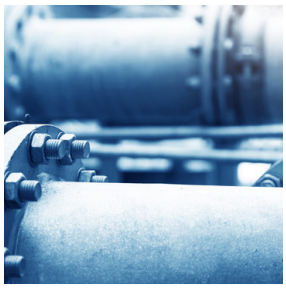
PDHs: 3 **Format: Self Study**

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

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.



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

PDHs: 2 **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.

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

PDHs: 2 **Format: Self Study**

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

NUCLEAR SELF STUDY

ZABC12
Essentials - B31.8 Gas Transmission and Distribution Piping Systems

PDHs: 2 **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

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.

EL551
Nuclear Piping Systems ASME BPV Code, Section III and B31.1: Design, Integrity-Operability Assessment, and Repairs

PDHs: 15 **CEUs: 1.5** **Format: Self Study**

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

ZABC29
NQA-1 Practical Application

PDHs: 4 **Format: Self Study**

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

GAS TURBINES SELF STUDY

ZABC5
NQA-1 Part 1 – 18 QA Requirements

PDHs: 4 **Format: Self Study**

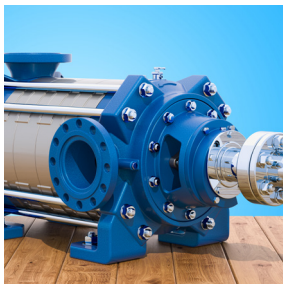
Overview of the ASME NQA-1 Nuclear Quality Assurance Standard and an in-depth look at Part I

EL540
Basic Gas Turbine Engine Technology Online Self-Study Course

PDHs: 10 **Format: Self Study**

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

FLUIDS & HEAT TRANSFER SELF STUDY



ZABC42
Introduction to the Selection of Pumps

PDHs: 2 **Format: Self Study**

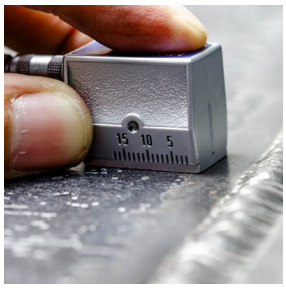
Introduction to pumps – the way they work, different types, and some basic applications

ZABC43
Introduction to the Selection of Valves

PDHs: 2 **Format: Self Study**

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

WELDING & BRAZING SELF STUDY



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

PDHs: 30 **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.

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.

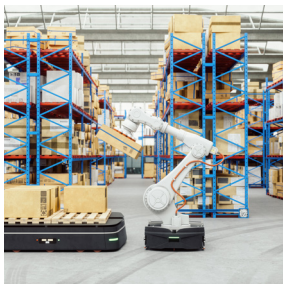
BIOPROCESS SELF STUDY

ZABC13
Essentials - Bioprocessing Equipment (BPE)

PDHs: 2 **Format: Self Study**

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

ROBOTICS SELF STUDY



RB210
Assessing Suitability for Robotics in Manufacturing: A Case Study

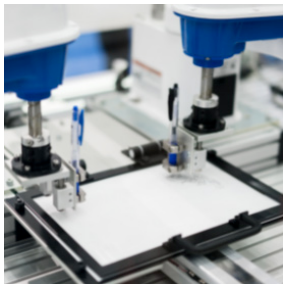
PDHs: 10 **CEUs: 1** **Format: Self Study**

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
6 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.

ZABC2

Technical Writing for Engineers: Giving Readers What They Need

PDHs: 4 **Format: Self Study**

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

ZABC101

Introduction to ASME Standards & Certification

PDHs: 2 **Format: Self Study**

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

ZABC3

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

PDHs: 3 **Format: Self Study**

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

x

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