

On-Demand Courses for the Iron Casting Industry

THORS Academy courses reflect industry processes from start to finish. Every step of the way, **Think THORS™** for solutions that accelerate learning and improve effectiveness.



RAW MATERIALS

Steel Basics
Steel Fundamentals



PATTERN AND DIE TOOLING

Gating and Riser Design Basics
Lightning Learning: Vertical Machining Center Series 1 and 2
Lightning Learning: Horizontal Machining Center Series 1 and 2



RAW MATERIALS

Ductile Iron Fundamentals
Gray Iron Fundamentals
Destructive Metallurgical Testing
Non-Destructive Testing



MELTING PROCESS

Iron Melting Fundamentals
Charge Calculation for Cast Irons
Cupola Furnace Fundamentals
Cupola Furnace Operations
Cupola Furnace Troubleshooting and Techniques



MOLDING

Bonded Sand Fundamentals
Bonded Sand Iron Casting Basics
Bonded Sand Horizontally Parted Molds
Bonded Sand Mold Patterns
Bonded Sand Vertically Parted Molds
Chemically Bonded Sand Basics
Green Sand Defects
Green Sand Equipment and Process
Green Sand Properties
Green Sand System Testing



CLEANING/FINISHING AND MACHINING

Foundry Cleaning Room Equipment
Abrasive Grinding Wheel Safety
Fixturing Fundamentals for Machining
Hole Process Fundamentals
Machine Tool Fundamentals
Surface Process Fundamentals
Turning Tool and Process Basics
Lightning Learning: Turning Center Series 1 and 2
Lightning Learning: Vertical Machining Center Series 1 and 2
Lightning Learning: Horizontal Machining Center Series 1 and 2

Our solution creates value for the following functions:

Design Engineering	Purchasing
Manufacturing Engineering	Quality
Manufacturing Operations	Sales



QUALITY ASSURANCE

Engineering Drawings Fundamentals
Engineering Drawings for Castings
Engineering Drawings for Machining
GD & T Fundamentals
Measurements: Basic Concepts
Measurements: Measurement Math
Measurements: Measuring Processes
Measurements: Measuring Tools
Destructive Metallurgical Testing
Non-Destructive Testing
Quality Inspection for Steel Castings
Production Part Approval Process (PPAP)
Control Plan

Contingency Planning
Process Flow Diagrams
Affinity Diagrams
7QC Tools: Check Sheets
7QC Tools: Control Charts
7QC Tools: Fishbone Diagrams
7QC Tools: Histograms
7QC Tools: Pareto Charts
7QC Tools: Scatter Diagrams
7QC Tools: Stratification
8D Problem-Solving Basics
5S Workplace Organization Method
Process Failure Mode and Effects Analysis (PFMEA)
Value Analysis and Value Engineering (VAE)



SAFETY

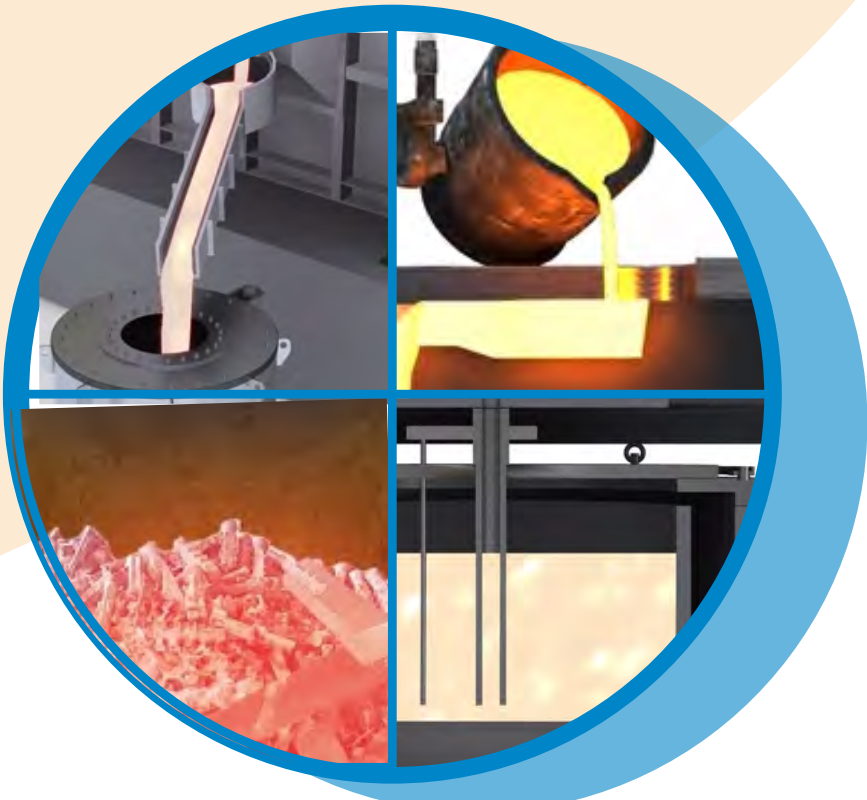
Personal Protective Equipment (PPE) Selection
Lockout Tagout (LOTO)



PLANT MAINTENANCE

Bolted Joint Basics
Bearing Fundamentals
Belt Classifications: Poly V Belts
Belt Classifications: V Belts
Chain Fundamentals: Industrial
Compressors: Ancillary Equipment
Compressor Fundamentals: Positive Displacement
Electric Motor Fundamentals
Valve Basics

Electrical Power Introduction
Electronic Terminology
Gearbox Basics
Hydraulic System Fundamentals
Threaded Fastener Testing and Defects
Threaded Fastener Terminology and Components
Robotic Fundamentals
Internet of Things: Manufacturing
Automation Basics
Threaded Fastener Specifications
Oil Seal Fundamentals: Rotary Applications



The THORS Academy Course Library is constantly growing with 2-3 new titles being added each month. Please use the QR code to view our most current list with links for details about each course.

To access the online THORS Course Library: Scan this QR Code
To search for any word: Use CTRL + F (or Command + F on the Mac)
To view more information about a course: Click on the Course Name