

TECHNOLOGY	8:00 AM – 9:30 AM	10:00 AM – 11:30 AM	12:00 PM – 1:30 PM	2:00 PM – 3:30 PM
<b>3D/ADDITIVE MFG</b>	<b>NEW!</b> ■ <b>F10:</b> Additive Manufacturing Outlook for Industrial Applications <b>Room B301</b>		■ <b>F12:</b> Additive Manufacturing Safety & Power Quality Solutions <b>Room B301</b>	■ <b>F13:</b> Business Considerations for 3D Additive Technology <b>Room B301</b>
<b>AUTOMATION</b>	<b>NEW!</b> ■ <b>F20:</b> Increase Productivity with Software Automation <b>Room B313</b>	<b>NEW!</b> ■ <b>F21:</b> Enabling Digital Transformation & Connectivity Solutions <b>Room B313</b>	<b>NEW!</b> ■ <b>F22:</b> Embracing Automation Options and Best Practices <b>Room B313</b>	■ <b>F23:</b> What You Need to Understand Before Thinking About Running Your Shop Lights-Out <b>Room B313</b>
<b>CUTTING</b>		<b>NEW!</b> ■ <b>F31:</b> The Most Versatile Machine Tool and Considerations for Successful Waterjet Machining <b>Room B302</b>		
<b>FINISHING</b>		■ <b>C11:</b> Powder Coating: Recipes for Success <b>Room B404</b>		<b>NEW!</b> ■ <b>C13:</b> Pretreatment in the Real World <b>Room B404</b>
		■ <b>C21:</b> ECOAT 101 - Basics of Electrocoating <b>Room B405</b>		■ <b>C23:</b> Maximizing Your Finishing Line - Cradle to Grave <b>Room B405</b>
		<b>NEW!</b> ■ <b>C31:</b> Zero to Smart Factory-Building Sustainability <b>Room B406</b>		<b>NEW!</b> ■ <b>C33:</b> Automate Your Way - Options for Your Powder Coating Line <b>Room B406</b>
<b>FORMING &amp; FABRICATING</b>	<b>NEW!</b> ■ <b>F40:</b> Advanced Brake Press Technologies <b>Room B305</b>	■ <b>F41:</b> Machine Safeguarding <b>Room B305</b>	■ <b>F42:</b> Roll Forming Basics <b>Room B305</b>	<b>NEW!</b> ■ <b>F43:</b> Coil-Fed Laser Blanking <b>Room B305</b>
<b>JOB SHOP</b>	■ <b>F50:</b> Job Costing and Estimating in a Changing Economy <b>Room B314</b>	<b>NEW!</b> ■ <b>F51:</b> Balancing Your Shops Process & Implementing ERP Solutions the Right Way <b>Room B314</b>	■ <b>F52:</b> How to Build a Better Supply Chain for Your Business <b>Room B314</b>	<b>NEW!</b> ■ <b>F53:</b> Holding People Accountable Through Effective Corrective Action in Today's Tight Labor Market <b>Room B314</b>
<b>LASER</b>	<b>NEW!</b> ■ <b>F30:</b> How to be Successful in Your Laser Joining Applications <b>Room B302</b>		<b>NEW!</b> ■ <b>F32:</b> Improve Laser Quality, Inspection & Applications in Joining Processes <b>Room B302</b>	<b>NEW!</b> ■ <b>F33:</b> Digital Laser & 3D Laser Cutting for Next Generation or Custom Robotic <b>Room B302</b>
<b>LEAN</b>	<b>NEW!</b> ■ <b>F60:</b> Leadership's Role in Leading Lean Teams <b>Room B304</b>	■ <b>F61:</b> Value Stream Mapping – Understanding the Whole: From Sales to Shop to Customer <b>Room B304</b>	■ <b>F62:</b> A3 Thinking - Developing People & Solving Problems <b>Room B304</b>	<b>NEW!</b> ■ <b>F63:</b> Lean Reflections and Projections <b>Room B304</b>
<b>MANAGEMENT</b>	<b>NEW!</b> ■ <b>F70:</b> When Worlds Collide: Management and Communication in a Multinational Workforce <b>Room B308</b>	<b>NEW!</b> ■ <b>F71:</b> Surviving the Aftermath of the Great Resignation <b>Room B308</b>	<b>NEW!</b> ■ <b>F72:</b> Outlook for Advanced Manufacturing: Accelerate Change and Benchmark Your Organization <b>Room B308</b>	■ <b>F73:</b> Gratitude Strategies to Create a Company Culture That Rocks <b>Room B308</b>
<b>MARKETING &amp; SALES</b>	■ <b>F80:</b> The State of Sales & Marketing: Attracting Tomorrow's Buyers <b>Room B315</b>	<b>NEW!</b> ■ <b>F81:</b> Make the Most of Your Marketing Without a Big Team <b>Room B315</b>	■ <b>F82:</b> Manufacturing the Sale & Applying Measurable Processes <b>Room B315</b>	<b>NEW!</b> ■ <b>F83:</b> Uncertain Economy & Supply Chain Growth Strategies to Gain Market Share <b>Room B315</b>
<b>ROBOTICS</b>	■ <b>WS01:</b> Getting Started in Industrial Robotics Workshop: What You Need to Know (8:00 AM - 12:00 PM) <b>Room B309</b>		<b>NEW!</b> ■ <b>F92:</b> Cost-Effective Robots for Any Type of Production, Even One-Offs-With Case Studies <b>Room B309</b>	<b>NEW!</b> ■ <b>F93:</b> Robotic Operating System, Integration and Programming <b>Room B309</b>
<b>SMART MFG</b>	■ <b>F100:</b> Digital Transformation Buzzwords & Playbook <b>Room B303</b>	<b>NEW!</b> ■ <b>F111:</b> Digital Transformation on the Shop Floor, Do More With Less <b>Room B303</b>	■ <b>WS02:</b> Smart Manufacturing Bootcamp (12:00-5:00 PM) <b>Room B303</b>	
<b>STAMPING</b>	<b>NEW!</b> ■ <b>S10:</b> Metalforming Industry Outlook – The Good, The Bad, The Opportunity. <b>Room B316</b>	■ <b>S11:</b> Metal Stamping Press Maintenance Best Practices to Maximize Performance <b>Room B316</b>	<b>NEW!</b> ■ <b>S12:</b> Dealing with Off-Center Loading in Stamping Operations <b>Room B316</b>	<b>NEW!</b> ■ <b>S13:</b> Maximize Your Metalworking Fluids - Cost, Safety, Performance and Re-use <b>Room B316</b>
<b>TUBE &amp; PIPE</b>	<b>NEW!</b> ■ <b>F400:</b> What's Happening in Tube Bending? <b>Room B306</b>	■ <b>F411:</b> Modern Tube Bending and Lubrication <b>Room B306</b>	<b>NEW!</b> ■ <b>F412:</b> Custom Tube Bending and Laser Cutting <b>Room B306</b>	<b>NEW!</b> ■ <b>F413:</b> Specialty Tube Welding <b>Room B306</b>
<b>WORKFORCE DEVELOPMENT</b>	<b>NEW!</b> ■ <b>F200:</b> Technology Investment Choices: The Impact of Hiring & Retention <b>Room B312</b>	■ <b>F211:</b> Mentoring & Creating a Successful Career Pathing Program <b>Room B312</b>	■ <b>F212:</b> Motivating & Building an Effective Workforce in 2022 <b>Room B312</b>	<b>NEW!</b> ■ <b>F213:</b> Rockstar Recruiting & Becoming the Employer of Choice <b>Room B312</b>

<b>WELDING</b>	■ <b>W1:</b> AWS/Weld-Ed Educators Conference – Robots And Automation in Welding Education <b>Room C201</b>	8:30 AM – 4:30 PM
	■ <b>W2:</b> Welding Productivity Tracks <b>Room C207</b>	9:00 AM – 4:30 PM
	■ <b>W3:</b> Diverse Roles and Needs within the Welding Industry Tracks <b>Room C211</b>	8:00 AM – 4:00 PM
	■ <b>W10:</b> Professional Program - Day 1 <b>Room C208-C209</b>	8:00 AM – 4:00 PM

Detailed Conference Program session descriptions, speakers, pricing, room locations and more can be found at [fabtechexpo.com/conference](http://fabtechexpo.com/conference).

■ Basic ■ Intermediate ■ Advanced

TECHNOLOGY	8:00 AM – 9:30 AM	10:00 AM – 11:30 AM	12:00 PM – 1:30 PM	2:00 PM – 3:30 PM
<b>3D/ADDITIVE MFG</b>	■ <b>F14:</b> Fundamentals of AM Technologies and the 7 Processes for Fabrication <b>Room B301</b>	<b>NEW!</b> ■ <b>F15:</b> Significant Product Case Studies in Additive Manufacturing <b>Room B301</b>	<b>NEW!</b> ■ <b>F16:</b> 3D Additive Robotic and Laser Solutions for Large Parts <b>Room B301</b>	<b>NEW!</b> ■ <b>F17:</b> Design Tools for Additive Manufacturing <b>Room B301</b>
<b>AUTOMATION</b>	<b>NEW!</b> ■ <b>F24:</b> Automation Basics and Integration for Fabrication Shops <b>Room B313</b>	<b>NEW!</b> ■ <b>F25:</b> How is AI Changing the Future of Robotics? <b>Room B313</b>	<b>NEW!</b> ■ <b>F26:</b> Automation E-Commerce Tools & Supply Chain Collaboration <b>Room B313</b>	<b>NEW!</b> ■ <b>F27:</b> Increase Business Intelligence & Labor Shortages with Automation <b>Room B313</b>
<b>CUTTING</b>	<b>NEW!</b> ■ <b>F34:</b> The Benefits of Cutting with Oxy-Fuel, Nitrogen & Assist Gas Technology <b>Room B302</b>	■ <b>F35:</b> Comparative Cutting: Which is Right for You? <b>Room B302</b>		
<b>FINISHING</b>	<b>NEW!</b> ■ <b>C14:</b> New Technologies I <b>Room B404</b>	■ <b>C15:</b> I Want To ECOAT, What Now? <b>Room B404</b>		<b>NEW!</b> ■ <b>C17:</b> New Technologies II <b>Room B404</b>
	<b>NEW!</b> ■ <b>C24:</b> Batch vs. Automated Finishing Systems - Which is Right for You? <b>Room B405</b>	■ <b>C25:</b> Improving Powder Coating Processes <b>Room B405</b>		<b>NEW!</b> ■ <b>C27:</b> Alternative Pretreatment Strategies <b>Room B405</b>
	<b>NEW!</b> ■ <b>C34:</b> Advances in Plating and Process Automation <b>Room B406</b>	<b>NEW!</b> ■ <b>C35:</b> In the House: Bringing Outside Services Inside <b>Room B406</b>		■ <b>C37:</b> IR Curing Technologies and their Applications <b>Room B406</b>
<b>FORMING &amp; FABRICATING</b>	■ <b>F44:</b> Roll Forming: In-line Punching, Cutoff Dies and Press Tonnage <b>Room B305</b>	■ <b>F45:</b> Coil Processing: Leveling, Deburring, Blanking, and Storing <b>Room B305</b>	■ <b>F46:</b> Roll Forming: Advanced Techniques and Design <b>Room B305</b>	<b>NEW!</b> ■ <b>F47:</b> Roll Forming: Materials and Troubleshooting <b>Room B305</b>
<b>JOB SHOP</b>	<b>NEW!</b> ■ <b>F54:</b> Risk Radar & Developing and Testing Incident Response Plans <b>Room B314</b>	■ <b>F55:</b> Improve Production Outcome & Create Sustainability in New Product Development <b>Room B314</b>	<b>NEW!</b> ■ <b>F56:</b> The Secret to Stress-Free Sourcing & Overcoming Supply Chain Problems <b>Room B314</b>	■ <b>F57:</b> Do You Know How Much Money You're Losing Due to Equipment Breakdown? <b>Room B314</b>
<b>LASER</b>			<b>NEW!</b> ■ <b>WS03:</b> Fabricators Laser Application Workshop (12:00–4:30 PM) <b>Room B302</b>	
<b>LEAN</b>	■ <b>F64:</b> Breaking Boundaries for Operational Excellence <b>Room B304</b>	<b>NEW!</b> ■ <b>F65:</b> Developing Lean Talent in 2022 <b>Room B304</b>	■ <b>F66:</b> Advance Production Floor Communication & Staffing to Strengthen Standard Work <b>Room B304</b>	<b>NEW!</b> ■ <b>F67:</b> The Connective Tissues of the Lean Systems Components <b>Room B304</b>
<b>MANAGEMENT</b>	<b>NEW!</b> ■ <b>F74:</b> Traits of High Impact Leaders <b>Room B308</b>	<b>NEW!</b> ■ <b>F75:</b> Black Swans in Abundance; Prepare for Future Disruptions <b>Room B308</b>	■ <b>F76:</b> Leading Yourself and Others Through Change <b>Room B308</b>	■ <b>F77:</b> Developing as a Leader in the 21st Century <b>Room B308</b>
<b>MARKETING &amp; SALES</b>	■ <b>F84:</b> Grow Your Business By Adopting the Right Habits <b>Room B315</b>	■ <b>F85:</b> Management & Best Practices for the Sales and Marketing Functions <b>Room B315</b>	<b>NEW!</b> ■ <b>F86:</b> Manufacturing Marketing Automation: How to Create, Implement, and Analyze High-Performing Strategies <b>Room B315</b>	<b>NEW!</b> ■ <b>F87:</b> Technical Writing for Inbound & Marketing Friendly Content <b>Room B315</b>
<b>ROBOTICS</b>	<b>NEW!</b> ■ <b>F94:</b> Analyzing Robotic Investment for Small to Mid-Size Fabricators <b>Room B309</b>	<b>NEW!</b> ■ <b>F95:</b> Using Robotics to Build Operational Resilience & Collaboration <b>Room B309</b>	<b>NEW!</b> ■ <b>F96:</b> Evolution of Robot Programming Possibilities <b>Room B309</b>	<b>NEW!</b> ■ <b>F97:</b> Robotic Solutions for Weld or Joining Technologies <b>Room B309</b>
<b>SMART MFG</b>	<b>NEW!</b> ■ <b>F114:</b> Surviving Technology and Labor Challenges in Digital Manufacturing <b>Room B303</b>	<b>NEW!</b> ■ <b>F115:</b> Condition & Production Monitoring in Smart Manufacturing <b>Room B303</b>	<b>NEW!</b> ■ <b>F116:</b> Using Artificial Intelligence to Drive Value in Manufacturing <b>Room B303</b>	■ <b>F117:</b> IIoT & Agile Development for High Mix, Low Volume Environments <b>Room B303</b>
<b>STAMPING</b>	<b>NEW!</b> ■ <b>S14:</b> Lightweight Sheet Metal for the Automotive Industry <b>Room B316</b>	<b>NEW!</b> ■ <b>S15:</b> Sensors for Die Protection - Make Die Crashes a Thing of the Past <b>Room B316</b>	■ <b>S16:</b> Automatic In-Die Part Quality Monitoring & Tool Adjustments <b>Room B316</b>	■ <b>S17:</b> Creating Operational Excellence in the Press Shop through Automation <b>Room B316</b>
<b>TUBE &amp; PIPE</b>		<b>NEW!</b> ■ <b>F415:</b> Specialty Tube & Hot Rolling Processes <b>Room B306</b>		■ <b>F417:</b> Advanced Solutions for Tube and Pipe <b>Room B306</b>
<b>WORKFORCE DEVELOPMENT</b>	<b>NEW!</b> ■ <b>F214:</b> Welcome Onboard: Simple Strategies to Keep Your New Hires from Jumping Ship <b>Room B312</b>	■ <b>F215:</b> Attracting, Leading & Retaining Talent, Millennials & Gen Z in the Workforce <b>Room B312</b>	■ <b>F216:</b> Creating a Culture of Accountability for Organizational Success <b>Room B312</b>	<b>NEW!</b> ■ <b>F217:</b> Creating Mentors for our Future & The Value of Apprenticeships <b>Room B312</b>

<b>WELDING</b>	■ <b>W5:</b> Practical Welding Metallurgy <b>Room C201</b>	8:00 AM – 4:00 PM
	■ <b>W6:</b> Pricing For Profitability Of Welded Structures <b>Room C207</b>	8:00 AM – 4:00 PM
	■ <b>W7:</b> Welding Performance Qualifications <b>Room C211</b>	8:00 AM – 12:00 PM
	■ <b>W8:</b> Secrets To A Successful PQR <b>Room C211</b>	1:00 PM – 3:00 PM
	■ <b>W10:</b> Professional Program - Day 2 <b>Room C208-C209</b>	9:00 AM – 5:00 PM

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TECHNOLOGY	8:00 AM – 9:30 AM	10:00 AM – 11:30 AM	12:00 PM – 1:30 PM	2:00 PM – 3:30 PM
<b>AUTOMATION</b>	<b>NEW!</b> ■ <b>F28:</b> Steps and Lessons Learned in the Automating Journey <b>Room B313</b>	<b>NEW!</b> ■ <b>F29:</b> Low-Cost Automation Breaks Down Barriers to Entry <b>Room B313</b>	<b>NEW!</b> ■ <b>F220:</b> Automation in Simulation & Imaging for Joining Process <b>Room B313</b>	
<b>CUTTING</b>	<b>NEW!</b> ■ <b>F38:</b> Overcome Labor Shortages in the Cutting Industry & Keep Your Equipment Running <b>Room B302</b>			
<b>FINISHING</b>	■ <b>C18:</b> See It, Touch It, Fix It <b>Room B404</b>	<b>NEW!</b> ■ <b>C19:</b> Using Industry 4.0 Data to Improve Your Quality and Workforce <b>Room B404</b>		
	<b>NEW!</b> ■ <b>C28:</b> How to Choose the Best Coating System <b>Room B405</b>			
	<b>NEW!</b> ■ <b>C38:</b> Improving Processes in Your Liquid Paint Booth <b>Room B406</b>			
<b>FORMING &amp; FABRICATING</b>	■ <b>F48:</b> Roll Forming Justification and Welding Profiles <b>Room B305</b>	<b>NEW!</b> ■ <b>F49:</b> Combustible Dust Safety for Metalworking and Fabrication <b>Room B305</b>		
<b>JOB SHOP</b>	■ <b>F58:</b> Business Owner Exit Options in Today's Market <b>Room B314</b>	■ <b>F59:</b> How To Use the R&D Tax Credit to Lower Your Tax Liabilities and Build a Competitive Advantage <b>Room B314</b>	■ <b>F510:</b> Innovative Manufacturers: to Patent or Not to Patent? <b>Room B314</b>	■ <b>F511:</b> Getting the Most Value Out of Selling Your Business <b>Room B314</b>
<b>LASER</b>		<b>NEW!</b> ■ <b>F39:</b> Introduction to New Laser Applications <b>Room B302</b>		
<b>LEAN</b>	<b>NEW!</b> ■ <b>F68:</b> Lean Tools for Industry 4.0 Continuous Improvement <b>Room B304</b>	<b>NEW!</b> ■ <b>F69:</b> Lean Tools & Concepts for Just in Time Implementation <b>Room B304</b>	<b>NEW!</b> ■ <b>F610:</b> Lean Tools for Implementation & Best Practices to Improve Job Shop <b>Room B304</b>	
<b>MANAGEMENT</b>	■ <b>F78:</b> Strategic Planning for Growth & Creating a "Gotta Have" Company <b>Room B308</b>	■ <b>F79:</b> Create Cultures of Innovation and Accountability <b>Room B308</b>	<b>NEW!</b> ■ <b>F710:</b> Using Emotional Intelligence to Transform You & Your Business <b>Room B308</b>	
<b>MARKETING &amp; SALES</b>		■ <b>F89:</b> Getting the Most of Your Website & Digital Ads <b>Room B315</b>	<b>NEW!</b> ■ <b>F810:</b> It's Just Business: International Differences in Sales Expectations <b>Room B315</b>	<b>NEW!</b> ■ <b>F811:</b> Building, Selecting & Developing the "Right" Sales Organization in Today's "Digital" Marketplace <b>Room B315</b>
<b>SMART MFG</b>	<b>NEW!</b> ■ <b>F118:</b> Protect Your Production Line: How to Keep a Cyber Attack from Bringing Business to a Halt <b>Room B303</b>	<b>NEW!</b> ■ <b>F119:</b> Digital Supply Networks & Steps for Securing Your Shop Against Cybersecurity Threats <b>Room B303</b>	<b>NEW!</b> ■ <b>F110:</b> Using Software & Hardware to Empower Smarter Decisions for Fabricators <b>Room B303</b>	
<b>WORKFORCE DEVELOPMENT</b>	<b>NEW!</b> ■ <b>F218:</b> Prioritize Your People: Building a Culture to Help You Grow, Maximize Profits <b>Room B312</b>		<b>NEW!</b> ■ <b>F210:</b> Women Who Lead: Activating the Power Within <b>Room B312</b>	

<b>WELDING</b>	<b>W9:</b> Stainless Steel Fabrications Do's & Don'ts, and Why Not(s) <b>Room C207</b>	8:00 AM – 3:00 PM
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**EXPERIENCE LEVELS**

Use this key along with the Schedule-at-a-Glance to find the education level that meets your needs.

- **Basic** – Recommended for the attendee who is new to the industry or needs a refresher on the topic.
- **Intermediate** – Designed for the attendee who already has a basic understanding of the subject matter.
- **Advanced** – For the attendee with several years of experience who is seeking more in-depth information.