

# FUNDAMENTALS OF METAL FABRICATION HANDS-ON WORKSHOP



JULY 18 - 22, 2016

HARPER COLLEGE  
FMA METAL FABRICATION LAB  
PALATINE, ILL.



1200 W. Algonquin Rd. | Palatine, IL 60067

## Schedule-at-a-Glance


Workshop training will be led by Kurt Billsten, Harper's Program Coordinator for Advanced Mfg., and Darrin Bax, Adjunct Faculty. Industry professionals will also present, bringing real-life issues and solutions to targeted subjects. Would you like to get involved? Contact [Ann Schneider](#) at **815-227-8220** to showcase your company's expertise and equipment on these topics.

Monday, July 18	Topic	Featured Speaker
2 – 2:30 p.m.	<b>Welcome</b> – Harper College overview	Kurt Billsten, Program Coordinator Harper College
2:30 – 3:15 p.m.	<b>General course overview</b>	
3:15 – 4:30 p.m.	<b>Harper Lab Safety</b>	Darrin Bax, Adjunct Faculty Harper College
4:30 p.m.	<i>Break</i>	
4:45 – 6:45 p.m.	<b>Cutting</b> – shears, plasma, oxyfuel <i>Training sessions can include classroom instruction, machine demonstrations, insight from industry professionals, and hands-on practice time.</i>	
6:45 – 7 p.m.	<b>Wrap-up</b>	

Tuesday, July 19	Topic	Featured Speaker
8 – 8:15 a.m.	<b>Morning introductions</b>	
8:15 – 10 a.m.	<b>Cutting</b> – laser	David Kloos, Training Supervisor MITSUBISHI EDM/LASER
10 a.m.	<i>Break</i>	
10:15 – 12 p.m.	<b>Cutting</b> – punchpress, turret press	
12 – 1 p.m.	<i>Lunch (onsite lunch provided)</i>	
1 – 3:45 p.m.	<b>Forming with the Press Brake</b> – session 1	
3:45 p.m.	<i>Break</i>	
4 – 6:45 p.m.	<b>Forming with the Press Brake</b> – session 2	
6:45 – 7 p.m.	<b>Wrap-up</b> - Formal instruction concludes at 7 p.m.	
7 – 9 p.m.	<b>OPTIONAL OVERTIME</b> - With supervision from Harper faculty, the FMA Metal Fabrication Lab will be open until 9 p.m. for additional hands-on practice.	Harper faculty

## Workshop Schedule-at-a-Glance p2

Wed., July 20	Topic	Featured Speaker
8 – 8:15 a.m.	<b>Morning introductions</b>	
8:15 – 9 a.m.	<b>Metallurgy</b>	
9 – 10 a.m.	<b>Coatings</b>	
10 a.m.	<i>Break</i>	
10: 15 – 12 p.m.	<b>Forming</b> – tube & pipe	Carl Middellegge, President Technical Tool Solutions
12 – 1 p.m.	<i>Lunch (onsite lunch provided)</i>	
1 – 3:45 p.m.	<b>Forming</b> – ring roll	
3:45 p.m.	<i>Break</i>	
4 – 6:45 p.m.	<b>Forming</b> – plate roll, iron workers	
6:45 – 7 p.m.	<b>Wrap-up</b> - Formal instruction concludes at 7 p.m.	
7 – 9 p.m.	<b>OPTIONAL OVERTIME</b>	Harper faculty

Thursday, July 21	Topic	Featured Speaker
8 – 8:15 a.m.	<b>Morning introductions</b>	
8:15 – 10 a.m.	<b>Welding &amp; Joining</b> – general introduction	
10 a.m.	<i>Break</i>	
10: 15 – 11 p.m.	<b>Quality</b> – ISO, Lean & other concepts	
11 – 12 p.m.	<b>Quality</b> – Metrology	David Lodge, Partner Manager 
12 – 1 p.m.	<i>Lunch (onsite lunch provided)</i>	
1 – 2 p.m.	<b>Laser Templating</b>	David Lodge, Partner Manager
2 – 3:45 p.m.	<b>Welding &amp; Joining</b> – MiG, TIG, orbital welding	Darrin Bax WISCO
3:45 p.m.	<i>Break</i>	
4 – 6:45 p.m.	<b>Welding &amp; Joining</b> – robotic, stud/resistance, rivets & Pimco fasteners	
<b>6:45 – 7 p.m.</b>	<b>Wrap-up</b> - Formal instruction concludes at 7 p.m.	
7 – 9 p.m.	<b>OPTIONAL OVERTIME</b>	Harper faculty

Friday, July 22	Topic	Featured Speaker
8 – 8:15 a.m.	<b>Morning introductions</b>	Harper faculty
8:15 – 9 a.m.	<b>Course recap / final questions</b>	Harper faculty
9 - 10 a.m.	Participants have the option of taking FMA's Fundamentals of Metal Fabrication certificate exam.	Harper faculty
until 1 p.m.	<b>FINAL SHOP TIME</b> - With supervision from Harper faculty, the FMA Metal Fabrication Lab will be open until 1 p.m. for additional hands-on practice.	Harper faculty

\*Schedule is preliminary. Topic placement and speakers are subject to change.