



MEET THE BOARD

The NBT Board of Directors is comprised of 12 men and women in the manufacturing industry who share a common mission and promise to inspire the next generation of manufacturers, inventors, and entrepreneurs.

The last newsletter featured a letter from David Brown, NBT Board Chair. In this issue and future newsletters, you will meet individual board members who keep the foundation working to its potential. The board meets three times throughout the year to discuss and implement ways in which NBT can make the largest impact on reducing the skills gap.

Here are some of the ways NBT is accomplishing its mission:

- Awarded over **\$738,000** to **330 manufacturing students** since the first NBT scholarship was awarded in 1990.
- Summer manufacturing camp program has grown from 1 camp in 2005 to **42 camps in 2016**, and the number of camp participants since program inception is nearly 3,500.
- **Awarded \$560,000** in grants to schools running a summer manufacturing camp.
- Created **summer camp curriculum** for students and instructors, which is now used at all NBT camps.

If you're interested in volunteering, write to foundation@fmanet.org, or call 815-399-8700.

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MEET MIKE CATTELINO, FOX VALLEY TECHNICAL COLLEGE NBT BOARD MEMBER SINCE 2014



"My personal core mission is to help students develop a clear path to a career that they have a passion for. The development of a career path can be summarized by words that start with the letter **E: Expose, Engage, Experience, Educate, and Employ**. The mission of NBT, and the support from industries connected to NBT, enhance the exposure and engagement opportunities as members of our future workforce bring focus to their career paths. Watching people's excitement build as they engage in activities that inspire their tinkering minds is rewarding to me."

— **Mike Cattelino** Associate Dean — Mfg & Agriculture Technologies, Fox Valley Technical College, Appleton, Wisc.

Mike's education and work experience have prepared him well for the position he now holds at Fox Valley Technical College. His training led him to become a journeyman machinist, followed by obtaining BS and MS degrees from the University of Wisconsin system. His current role puts him in an ideal position to give real-life manufacturing career guidance to students at Fox Valley Technical College.

Mike has been advocate of hands-on activities for young people at an early age. He has coordinated camps for NBT and strongly supports this endeavor.



MEET THE SCHOLARSHIP WINNERS: WHERE ARE THEY NOW? RYAN HENDERSON



2015 formula style race car



Working at the CNC machine

Catching up with Ryan Henderson isn't an easy task. The 2015 NBT/John Grossheim Memorial (OPC) Scholarship winner is pursuing a degree in Industrial Engineering at Penn State, works as a Teaching Assistant, and has a *need for speed.*

Ryan landed a new job this semester and became a teaching assistant at the Penn State Learning Factory, a student-run manufacturing facility. In this position, he is responsible for supervising students working in the Learning Factory, providing safety training to new students, and aiding other students with the operation of equipment such as the water-jet, 3-D printers, and laser engraver.



Providing instruction at The Learning Factory

He spends his "spare time" as the manufacturing lead for the Penn State Formula SAE team, an integral part of the group. This position keeps him extremely busy because the team manufactures 90% of the car at Penn State.

Penn State Formula SAE (Society of Automotive Engineers) is a student-run design team with the task of designing and prototyping a formula-style racecar for the annual Formula SAE competition. At this competition, held at Michigan International Speedway, teams from all over the world are judged in both static and dynamic events including: cost of production, ergonomics, an investment presentation, acceleration, autocross time, and a grueling endurance race. The competition provides students with an opportunity to apply their engineering, organization, and communication skills in an industry-like setting.

Not settling for the status quo, here's what Ryan had to say about an improvement the team made to this year's car:

"This year the team decided to manufacture our own wheel centers because we have had issues with the "off-the-shelf" wheel centers in the past. We validated the new design through a Finite Element Analysis program on the computer and then tested them on the track after machining was complete."

The Penn State Racing Team finished 39th overall and 14th in endurance during the May 12-14, 2016 competition. They're already planning and excited for next year! Ryan's team captain would be proud to know that he requested a simple line in this feature: "If you have additional questions about the team or are interested in sponsoring the car, please contact George Mishkin, the team captain, at pennstateracing@gmail.com."

SCHOLARSHIP UPDATE:

This month, NBT will award up to 20 scholarships for the fall 2016 semester to deserving men and women pursuing their dream of a career in the manufacturing industry. If you, or someone you know, could benefit from financial assistance but missed the deadline, remember that NBT awards twice per year — the application period for the spring 2017 semester award is **July 1 through Sept. 30, 2016**. Apply at nutsandboltsfoundation.org/scholarships.

Don't forget that your FMA company membership gives you, your employees, their spouses, and dependents priority consideration to receive an NBT scholarship.



Members of the Penn State Formula SAE team at Jeff Gordon's pit.

Ryan is a true leader, teacher, entrepreneur, and focused student. He said "receiving the NBT scholarship last fall was a huge blessing, and I can't thank you enough. It really helped out!"

Hats off to Ryan for his dedication to the industry.

In the next issue, NBT catches up with scholarship winners, **Lauren Werner**, Industrial Engineering, Purdue University and **Tyler Rigby**, Mechanical Engineering, Penn State Erie, The Behrend College.

Unveiling of the 2016 formula-style racecar



President's Challenge



Last year, the President's Challenge raised over \$27,000 for the programs of NBT. This year **Ed Youdell**, President and CEO of FMA and NBT, is once again challenging companies and individuals to match his personal donation of \$1,500 in order to meet the \$50,000 goal. Ed demonstrates his true concern about the skilled labor shortage in North America. He is donating his money towards a scholarship or summer camp grant recipient and hopes that you will join him in this endeavor. Says Ed, "Together, we can ensure the successful future of the manufacturing workforce."

Learn more at: nutsandboltsfoundation.org/presidentschallenge

DONATION REMINDER

MATCHING GIFTS MAKE SENSE

Every year, billions of dollars in workplace matching funds go unclaimed. The company you work for may be one of those companies with an under-utilized matching program. NBT asks you to consider researching if your company has such a program in order to support the mission of NBT.





Monday, Aug. 22 | Cantigny Golf Club, Wheaton, Ill.

2016 marks the fourth annual GOLF4MFG fundraiser at Cantigny Golf in Wheaton (Chicago area), Ill. An industry tour kicks off a full day of networking, games, prizes, food and of course, GOLF! Cantigny Golf is acclaimed to be one of the Top 50 Courses you can Play in America, by *Golf Magazine* and placed on *Golfweek's* Best Places You Can Play in Ill. list for 5 consecutive years.

Proceeds of the GOLF4MFG event support the summer manufacturing camp and scholarship programs of NBT. One foursome can help send a student to college or pays for a summer manufacturing camp grant. You could likely give a student an experience like no other—the chance to make something with their own hands and find a passion they didn't know that they had.

Register today at golf4mfg.nutsandboltsfoundation.org.

NBT CAMPS GET UNDERWAY

June kicks off another NBT summer camp season. Donations to the foundation are supporting an all-time record of **42 summer camps** across North America. Check out the complete list of camp locations on the NBT website: nutsandboltsfoundation.org/camps

Would you like to see a camp in your area? Sometimes all it takes is a request to the closest community or technical college with a manufacturing-related curriculum to apply for a summer camp grant. Or, contact NBT with your ideas and the names of the college in your area at foundation@fmanet.org.



SAVE THE DATE



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