

### About MTA

*MTA Students* work with academic and technical instructors with access to mentors and industry experts for hands-on, technical experience. The class of 2016 was the 20th graduating class, launching students into success.

*Parents* value a tuition-free education in math, science, English, technology, and communication. Practical experiences in a manufacturing setting enhance the instruction.

*Counselors and teachers* appreciate that MTA is a TBAISD program that does not reduce a school's student funding. Students earn high school academic credits through integrated curriculum.

*Local businesses* partner with MTA to develop a workforce prepared to compete in the global economy. Students benefit from job shadowing, mentoring and professional opportunities, building strong industry relationships.

### Contact MTA

Instructor Tim Wheatley  
(231) 995-1304  
twheatley@tbaisd.org

MTA Guidance Board Chair  
Brian Dubow

Career-Tech Center Principal  
Pat Lamb

Newsletter provided by the MTA  
Guidance Board, and published by  
TBAISD Communications

**Spread the news!**  
**Share this newsletter with**  
**parents of high school students**  
**and local businesses.**

## Manufacturing Technology Academy Parent and Student Information Nights

Join Manufacturing Technology Academy educators for parent and student information nights. The sessions are ideal for current high school sophomores who are looking for a challenging educational experience in an environment with other motivated students. Learn about the program's rigorous academic classes in math, science, English and economics. Information will also be presented highlighting MTA's technical classes that develop skills in engineering and project management, robotics and automation, product design, and electrical and pneumatic systems.

**Select an  
Information Night** ▶  
All sessions 6:30 to 8:00 p.m.

**Wednesday, February 1**  
**Wednesday, February 15**  
**Monday, March 13**

Information night sessions take place in Room 112 at the MTA facility located in the NMC Parsons-Stulen Building at 2600 Aero Park Drive in Traverse City. **Please RSVP to Tim Wheatley at (231) 995-1304 or twheatley@tbaisd.org. See MTA application instructions on page 4.**

*Manufacturing Technology Academy is a tuition-free program offered by Traverse Bay Area Intermediate School District's Career-Tech Center for eleventh and twelfth grade students in Antrim, Benzie, Grand Traverse, Kalkaska and Leelanau counties.*

### Learn. Do. Advance.

Students who choose to attend Manufacturing Technology Academy are enthusiastic about learning -- especially in STEM. While MTA teachers are accustomed to eager students, the extent of student optimism became even more clear after a recent writing assignment: Students read articles about engineering and responded with personal observations written in a journal. The journal entries communicated their overwhelming sense of empowerment and opportunities for advancement with engineering.

Many MTA students intend to study engineering at the college level and pursue engineering careers. Others plan to pursue business, medicine, military and more. In any case, MTA students see a world full of potential.



Harrison Schaub (St. Mary)

#### Engineering is...

- "Tools that allow us to improve lives"
- "Makes life easier by improving ideas"
- "Developing new technologies to improve the 'now' so the future is better"
- "The art of design toward a functional goal"
- "Innovative ideas that become reality"
- "Impact"
- "A building block of advancement"
- "Endless opportunities to improve the world"

Thank you to the following MTA students for sharing their visions: **Alex Thayer, Joe Weber, Ryan Sass, Josh Nye, Bradon Lowe, Sam Dunlap, Caleb Cheung, and Harrison Schaub**



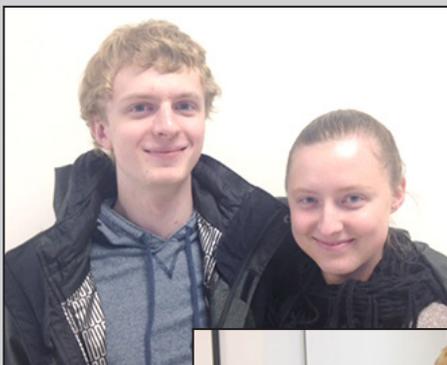
**MTA grads reunite for the annual MTA holiday party**  
 Amanda Lodge (Hamilton Coll.), Joel Zemanek (Embry Riddle), Max Casler (MTU), Luke Crawford (MTU), Colton Lowe (NMC)



MTA alum and brothers, Victor Casler (Clemson) and Max Casler (MTU)

## MTA Alums Share Pointers

December is an exciting time of year because of the holidays, busy school schedules and because MTA graduates come home from college and visit MTA for the annual holiday party and alumni panel. In an atmosphere of celebration, the college students spend time with current MTA students sharing their new experiences and valuable advice. They bring perspectives from near and far including NMC, Michigan Tech, University of Michigan, Grand Valley, Hamilton College, Kettering University, Clemson, Embry Riddle Aeronautical Institute, Michigan State, and Northern Michigan University.



**MTA brother & sister pairs**  
 Left: Christopher and Amanda Lodge  
 Below: Taylor and Jeff Hines



### Tips shared by alums with MTA juniors and seniors:

- Ask professors for help and take time to get to know them. Start the habit at MTA -- if you need help, ask for it.
- College can be stressful, so find a relaxing hobby to balance work with fun. If you find a hobby related to your major, that's even better! Relax, have fun, and learn something that will aid in your future career.
- Take advantage of study abroad opportunities, no matter your major.
- Do as many internships as you can -- beginning at MTA. The more experience, the better chance you'll find a fulfilling and rewarding job.
- Get involved in campus activities, clubs, sports, etc. They allow you to take a break from studying and meet new people.
- MTA is not only for students who want to be engineers. No matter which career path you choose, MTA teaches you how to think critically and work hard.
- You will hit tough patches in college and work. When things get difficult, take a break, but then keep going! Don't give up.
- Like at MTA, you will be surrounded by smart people at college and in your career. Embrace the fact that you may no longer be the smartest person in the room. Work together and learn from one another.

**“MTA teaches you how to think critically and work hard...”**

**“Work together and learn from one another...”**



## Team Training Matches Students with "Live" Business Challenges

MTA students spend a full week each year focused on team-based problem solving using the Plan-Do-Study-Act engineering method for continuous improvement. With the help of local manufacturing companies, students are teamed with leaders in business settings to diagnose and solve manufacturing problems. Along the way, MTA students learn techniques for asking insightful questions to clearly identify a problem, compiling notes and data, and ultimately presenting data and progress in a formal technical report.

Pictured above, MTA juniors Jay Marchant (GTA), Ryan Sass (Benzie), Taylor Hines (GTA), Joe Weber (Buckley), Josh Nye (Benzie), and Alex Thayer (Frankfort) learned and demonstrated teamwork through hands-on experience at Traverse City manufacturing company, Plascon Group. Plascon leaders welcomed the students into their facility to coach and share professional expertise.



MTA values Plascon's support in addition to Team Training, including internship hosting and employees serving as student mentors. Although the company typically seeks college students for summer internships, Plascon has accepted MTA students because they are capable of diving into company projects with knowledge and confidence.

Team Training combined with professional mentorship from companies like Plascon prepares MTA students for the responsibilities they will surely encounter in college and in their careers. The hands-on experiences and interactions allow students to explore using their talents to make real impacts on an organization's daily functions.

Additional Team Training hosts included Bay Motor Products, TentCraft, Anchor Lamina, and RJG, Inc.



## Robotics Teams in Action

### Senior Project Kickoff

On Monday, January 9, MTA hosted the robotics build season kick-off, welcoming parents, business partners and CTC staff members. The event builds excitement, fosters brainstorming, and allows seniors to present their project plans, while also showcasing FIRST Robotics competition details. MTA juniors have been matched with seniors to learn and work on the robotics competitions together.

### FIRST Robotics

The 2016 FIRST Robotics events will involve 3,000 teams comprised of 78,000+ students from around the world. This year's competition is named STEAMWORKS, themed around the era when technology relied on steam power for flight. Students will build and program a robot to perform tasks against a field of competitors, raise funds, design a team "brand," and hone teamwork skills. It is a realistic business and engineering student experience.



**MTA will attend 2017 FIRST district competitions on March 16-18 in Gaylord, and April 6-8 in Traverse City.**

### National Robotics Challenge

Several MTA student teams are preparing for the **National Robotics Challenge (NRC) in Marion, Ohio on April 5-8**. Four MTA teams are building a fully autonomous sumo robot, two rescue robots, and a pair of hockey robots for the competition. NRC is sponsored by Honda and the Society of Manufacturing Engineers. It is judged based on students' understanding and applications of technical principles, problem-solving concepts, and teamwork.

**Follow MTA Robotics on Twitter and Instagram  
Like MTA on Facebook at [www.facebook.com/TCMTA](http://www.facebook.com/TCMTA)  
Visit LinkedIn for Manufacturing Technology Academy Community**



## Get Involved in Education: Win-Win for Businesses

Manufacturing Technology Academy welcomes business support with opportunities for organizations to get involved through sponsorships, grants, mentorships, intern programs, robotics, guidance council, and more. MTA students flourish and organizations benefit from workforce development and education connections. Contact Debby Oliver at [doliver@tbaisd.org](mailto:doliver@tbaisd.org) or 995-1304.

Manufacturing Technology Academy  
TBAISD Career-Tech Center  
880 Parsons Rd.  
Traverse City, MI 49686



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CURRENT RESIDENT OR

## MTA MATTERS

### Apply Today!

Manufacturing Technology Academy provides a unique and enriching educational opportunity. Students are admitted based on application. It's simple to apply... here's how:

**Applications  
Must be  
Postmarked by  
April 14**

#### Visit MTA

- Students may arrange a visit through their school counselor
- OR**
- Attend an information night session (dates on page 1)

#### Mail Application Packet by April 14 to:

MTA, Tim Wheatley, 880 Parsons Rd.,  
Traverse City, MI 49686

Application packet should include:

- MTA application with counselor comments and signature
- 9th grade and first semester 10th grade transcripts
- One-paragraph essay explaining why student would like to attend MTA
- Two letters of recommendation (only one may be from an educator)

#### Interview with MTA Manufacturer's Council

- Students will be contacted by MTA to schedule an interview after submitting full application packet

#### Await Notification

- Students will be notified of their application status by MTA after completion of *all* applicant interviews

**Questions?** Contact Tim Wheatley at (231) 995-1304 or [twheatley@tbaisd.org](mailto:twheatley@tbaisd.org)



*Photo: Christina Trogan*

### Big Accomplishments, Bright Futures

Current MTA students, staff and mentors are looking up toward bright futures. Students from schools throughout TBAISD's five-county region come together to form strong academic, social and professional bonds.

Manufacturing Technology Academy received a national award from Advance CTE in May 2016 as the top STEM career-technical education program in the United States. MTA was honored based on its academic rigor, tech coursework, and strong partnerships for student opportunities.

MTA is located in the NMC Parsons-Stulen Building at 2600 Aero Park Drive in Traverse City. For additional information, contact Tim Wheatley at (231) 995-1304 or [twheatley@tbaisd.org](mailto:twheatley@tbaisd.org).

#### MTA Mission Statement

To provide a learning environment which motivates and enables students to acquire world-class manufacturing and engineering skills while positioning them to compete and excel in the global market.