

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 2015 was the 19th 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

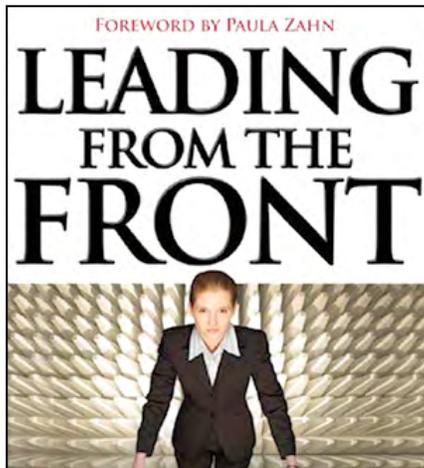
Join Manufacturing Technology Academy educators for parent and student information nights. Learn about the program's rigorous academic and technical work, tour facilities, and visit with business partners, current students, and teachers. Explore the benefits of MTA for students interested in engineering, robotics, management, product design or technological professions.

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

Wednesday, February 3
Tuesday, February 23
Thursday, March 10

Information night sessions take place at the MTA facility located in the NMC Parsons-Stulen Building at 2600 Aero Park Drive in Traverse City. Please RSVP for a session by contacting 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. High school students in eleventh and twelfth grades from Antrim, Benzie, Grand Traverse, Kalkaska and Leelanau counties are eligible to enroll.



Reflecting on the book's messages, students valued and applied several points. "I wrote about leadership qualities for my scholarship essays," commented one student. Another acknowledged, "Ms. Morgan's military experience combined with her leadership insights are helpful to me as I navigate the application process for the Naval Academy."

Learning to Lead

Each fall Manufacturing Technology Academy seniors study the book *Leading from the Front* in preparation for robotics season. Author and consultant Angie Morgan visited MTA recently to review key points of the book with students and highlight ways to implement the lessons in school work and beyond.

As MTA seniors form their robotics teams, they are called to lead the juniors through the six-week planning, building and competition phases. Strong project management plays a big role and the seniors are reminded to lean on the helpful principles outlined in *Leading from the Front*:

- *Set an inspiring example*
- *Think fast on your feet*
- *Stop making excuses*
- *Take care of your team*
- *Respond without overreacting*
- *Stay cool while dealing with crises*
- *Have the courage to achieve your goals*



Above left to right: Matt Bulloch, Tyler Cobb, Jon Dreher

MTA Student Spotlight: Tyler Cobb & Alex Welling

TBAISD Career-Tech Center's Manufacturing Technology Academy (MTA) students prepare to make real impacts on local business. Case in point, TentCraft President Matt Bulloch recently shared high praise for students' contributions to his organization in an email to Career-Tech Center Assistant Principal Matt Nausadis. "...Whatever you guys are doing over there is working... Tyler Cobb is interning for us and is basically doing the job of a trained engineer."

TentCraft is a Traverse City-based custom tent and



banner manufacturer affiliated with Britten. Bulloch explains how his company's bottom line is directly affected by student work, "We bought a 3D printer for Tyler to help us design parts because we were paying our plastic supplier \$500 per prototype piece. With Tyler on board, the 3D printer has already paid for itself."

TentCraft Vice President of Manufacturing Jon Dreher also acknowledged the work of Tyler and another MTA intern, Buckley High School senior Alex Welling. Dreher explains, "We have been fortunate to have fine, locally-grown candidates come through our internship program. We are trying to create an arena for growth for these students who have levels of capacity that need to be utilized and respected."

Tyler Cobb is a senior at Traverse City West Senior High School and Alex Welling is a Buckley High School senior. Through their work ethic and capacity to learn advanced manufacturing and engineering principles, both MTA students earned internships with TentCraft.

TBAISD, Career-Tech Center, and MTA staff are proud of all of its students and is grateful for TentCraft's noteworthy acknowledgement of these concrete contributions to local workforce development and business.



RJG, Inc. Team

Team Problem Solving

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.

MTA students learn and demonstrate teamwork through hands-on experience. This year's business hosts welcomed students into their facilities and shared professional expertise and insights. Hosts included Bay Motor Products, Frankfort Manufacturing Company, Anchor Lamina, and RJG, Inc.



Anchor Lamina Team

Get Involved in Education: Win-Win Giving for Businesses

Manufacturing Technology Academy welcomes business support for this well-respected educational program. Many opportunities exist for organizations or individuals to get involved, including financial sponsorships, grants, mentorships, intern programs, robotics, guidance council, and more. As a result of such support, MTA students flourish. In return, contributing organizations benefit from involvement in regional workforce development and educational connections. For additional information, contact Debby Oliver at doliver@tbaisd.org or (231) 995-1304.



Meet Your Mentors

More than 50 professional adults volunteered to mentor Manufacturing Technology Academy students this year. Early in the school year, students write goal papers to identify career interests, hobbies, and communication styles. That information is then used to match students with compatible mentors. The mentor teams were introduced at the kick-off breakfast in November, mapping out plans to support and learn from one another. The mentoring relationship is designed to provide students interested in technical careers with leadership and motivational guidance from a local business professional. Mentor pairs meet throughout the year to discuss work and educational goals. Students also benefit from the program by having opportunities to see up-close the work habits and responsibilities of their mentors. Pictured above left, Benzie Central High School senior Abbey Clasen was paired with mentor Katie Corona of Electro-Optics Technologies, Inc. Benzie Central junior Scot Laing is mentored by Mike Coyle of RJG, Inc.



Robotics Teams in Action

Senior Project Kickoff

On Monday, January 11, MTA hosted the senior 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.

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 STRONGHOLD, themed around



medieval times and kingdom-building. Students will build and program a robot to perform prescribed tasks against a field of competitors, raise funds, design a team "brand," and hone teamwork skills. It's as close to real-world business and engineering as a student can get.

MTA will attend 2016 FIRST district competitions on March 18-19 in Midland, and April 8-9 in Traverse City.

National Robotics Challenge

Several MTA student teams are preparing for the **National Robotics Challenge (NRC) in Marion, Ohio on April 8-9.** Teams are building two heavyweight sumo robots, a rescue robot, and a robotic workcell 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.

MATE Underwater Remotely Operated Vehicle (ROV)

New to the competition schedule this year, MTA hopes to have students participate in the ROV event hosted by Marine Advanced Technology Education Center. The student-built ROV will compete by performing underwater tasks according to contest guidelines. **Competition is May 20-21 in Alpena.**



MTA Crew Looks Ahead

Current students, staff and mentors of MTA (above) 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 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.

Photo courtesy of Mike Drilling of Windborne Photography

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



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CURRENT RESIDENT OR

MTA MATTERS

Apply for MTA 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:

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 11 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

**Applications
Must be
Postmarked by
April 11**

Sponsors Tee Up for MTA



Above left to right: Pat Lamb, Mike Hill, Tom Hoopfer

Tom Hoopfer of East Jordan Iron Works presented TBAISD Superintendent Mike Hill and Career-Tech Center Principal Pat Lamb a check for \$6,750. The donation is from the annual Grand Traverse Manufacturers' golf outing and will support MTA robotics, team problem solving, and many other student projects. Thank you to the event sponsors and to Mike Alfonso and Grand Traverse Machine for the donation of first and second place plaques.

Corporate Golf Sponsors:

Forkardt, Flannery Machine, Shively Brother, Hallmark Fabrication & Assembly, TranTek Automation, Addy Machinery Company, Grand Traverse Machine Co., Microline

Golf Hole Sponsors:

Forkardt, Ryerson, Clark Manufacturing, Century Sun Metal Treating, CPM Century Extrusion, Peninsula Construction & Design, Peerless Steel, Peterson McGregor & Assoc., Ultra-Dex Tooling Systems, Zapp Tooling Alloys, Microline, Motor City Industrial Marketing, Padnos - Traverse Bay Division

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.