# Totino-Grace High School

## feature

Engineering stitute

Spring | Issue 1

Totino-Grace's First E3 Cohort Completes Engineering Institute

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### DISCOVER TG

The Totino-Grace Admissions Office hosts a variety of events and opportunities for students and parents to learn more about the school. We invite you to share your TG story and invite family, friends and neighbors to Discover TG!

### CONNECT WITH TOTINO-GRACE





## Totino-Grace

### **MISSION STATEMENT**

Totino-Grace is an Archdiocesan co-educational Catholic high school in the Lasallian tradition. Welcoming a student body that is academically, economically, and culturally diverse, we strive for equity and excellence in all programs. Recognizing the key elements of our mission as learning, faith, community, and service, we seek to provide a safe environment that places priority on mutual respect, self-discipline, and acknowledgment of our responsibility in the world community.

### ADDRESS CHANGES AND ALUMNI NEWS SUBMISSIONS

Submit address changes and submissions for alumni notes at www.totinograce.org/alumni or contact the Alumni Relations Office at 763-586-6326 or alumni@totinograce.org.

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# From the **President's Desk**

Since I joined the Totino-Grace community as President, I have seen and experienced how the uniqueness of our Catholic Lasallian heritage drives the success and growth of each student and our entire community. As our school's 50th academic year draws near, we have taken steps to preserve our mission and approach our future with great intention.

In the fall of 2014, the Totino-Grace Board of Directors and the Administrative Team developed a community-based strategic plan to create a road map to guide us in the years to come. While several priorities emerged, it was clear that we needed to increase our financial vitality while seeking to mitigate tuition increases for families and provide ever greater opportunities for students. I am also proud to share that for the past two years TG's tuition percentage increase has been less than any other Archdiocesan high school and we will continue to keep this a priority. Clearly, as a Catholic Lasallian school, we want to be more accessible to families while also maintaining what has always made a Totino-Grace education distinctive: a sense of community that is inviting, encouraging, challenging, and loving.

We are also building. A boarding residence will open in the former Retreat Center in the fall of 2016. It is anticipated that approximately 40 international and domestic students will join us at TG within the next several years. The facility will generate revenue and further create a global presence on campus to the benefit of our students. In addition, we will once again be able to hold student retreats on campus and share the community space with partner schools.

As I reflect on the school year, and the activities in the classroom and beyond, the words inspiration and opportunity stand out. Our students are expanding their horizons in a multitude of ways. One of the most exciting programs for our students is the E3 Engineering Institute. In the pages that follow, you will see how the program has grown and all that it does to spark a creative and thoughtful approach to academics, personal development and future planning and preparation. This program is special. The mentoring component provides a relational experience that sets it apart. What is more, our E3 students are actively engaged in their own learning, exploring, collaborating, and problem solving.

This is an exciting time to honor our traditions and develop the leaders of tomorrow. We are inspiring minds, touching hearts, and opening doors to help our students become the best possible versions of themselves. Here's to another 50 great years!

Live, Jesus, in our hearts. Forever! Dr. Craig W. Junker President

## High School Happenings

### SHOW CHOIR NATIONALS

Company of Singers received the first runner up title following their participation in the 2016 Show Choir Nationals in Nashville in April.



#### **PERCUSSION ENSEMBLE**

TheTotino-Gracepercussionensemblehadanundefeatedseason in their class and placed firstin the 2016MinnesotaPercussionState Championship onApril 2.



### **SPOTLIGHT MUSICAL THEATRE HONORS**

The Theatre Department's musical production of The Addams Family performed five nearly sold out shows and featured some of the best theatrical talent at Totino-Grace. The musical received several honors as part of Hennepin Theatre Trust's Spotlight Musical Theatre Program.





### **DANCE TEAM 2016**

The E'gals dance team took home two gold medals for first place wins in jazz and high kick at the Dance Team State Tournament in February.

### ATHLETIC STATE TOURNAMENT PARTICIPANTS

The Eagles football team advanced to the State Semifinal game.

Runners Kevin Dado '17, Michaela Brands '16 and Maggie Louiselle '16 ran in the State Cross Country Meet.

The varsity and junior varsity bowling teams competed in the State Bowling Tournament in December with the varsity team placing second in their division.

The wrestling team participated in the State Tournament and the following wrestlers earned individual state titles in their weight class: Jake Svihel '19 - 2nd Place, Jared Florell '16 - 4th Place, Sam Anderson '16 - 3rd Place.



### LEARNING BEYOND THE CLASSROOM

This spring, Totino-Grace added a Girls Who Code Club. Members learn how to write code and apply that knowledge with hands-on activities, creating games, pictures, apps, and websites on their computers.

Totino-Grace students participated in a language and cultural immersion trip to Mexico last summer. In addition to daily small group instruction and conversation practice, cultural exposure and exploration, the group visited Mexico City's Museum of Anthropology, Basilica, Cathedral, and saw the pyramids of Teotihuacan, the Xochicalco Aztec ruins, and Las Estacas, an ecological reserve.

In March, students spent time in France touring Paris and Nice, exploring landmarks and attractions. In addition, the group stayed with local families in Toulon, along the Mediterranean Sea.

### **OUTSTANDING STUDENTS**

Seniors Michael O'Dea and Hannah Gams were named 2016 National Merit Scholars and are among 15,000 National Merit Finalists from across the country.

On April 10, 85 juniors were inducted into the Totino-Grace chapter of the National Honor Society.

#### EDUCATOR HONORED

Mr. Ned Thompson was an Honor Teacher finalist for the 2016 Minnesota Independent School Forum Private and Independent Education Awards in April. The event recognizes the excellence found in Minnesota's private and independent school community. In addition, Mr. Thompson received the Jim Dimmick Retired Coach of the Year Award from the Minnesota State High School Baseball Coaches Association last fall.



### BERNIE LITECKY FOOTBALL HALL OF FAME

Assistant football coach Bernie Litecky was inducted into the Minnesota Football Coaches Hall of Fame on April 2. He joins Dave Nigon, Paul Gasner, and Jeff Ferguson, making Totino-Grace the only program in the state of Minnesota with four coaches in the Coaches Hall of Fame.



#### **SCIENCE TEAM 2016**

The science team competed in the Science Olympiad State Tournament at Bethel University on March 5. Out of 33 participating schools, three Totino-Grace teams placed in their events: Beth Warren and Rylie Spehn – 10th, Anatomy & Physiology; Alex Ulate and Sara Laufers (pictured) – 7th, Robot Arm; and Beth Warren and McKenzie Schmidt 8th, Write It Do It.

### La Salle Middle School at St. Matthew's



### CAMPUS MINISTRY AND LASALLIAN YOUTH

Our mission trip program expanded this year to include 12 trips to 11 locations. In total, 130 students and 20 faculty and staff chaperones served communities in Guatemala, Haiti, Arizona, Alabama, New York, Missouri, Illinois, and the Twin Cities.

Lasallian Youth volunteers spent time after school each week serving meals, visiting with the elderly, packing meals, and tutoring elementary school students. More than 320 students completed 2.500 service hours this year.

Campus Ministry staff and Student Ministers have worked with a wide variety of organizations to raise awareness and financial support among our student and staff community, including Special Olympics Minnesota, Southern Anoka Community Assistance, Feed My Starving Children, Tackle Cancer, Common Hope, Healing Haiti and St. Joseph's School in Keren, Eritrea. From the 11th annual Dodge for a Difference to homeroom collections and food drives, students were made aware of the significant impact that can be made by collective giving.



### **CELEBRATE MY DRIVE**

Due to the incredible support of the Totino-Grace community, the school earned a \$100,000 grant this year from State Farm's Celebrate My Drive program. We wish to thank current parents and all members of our community who joined our campaign and contributed to our success. Our school will utilize 22% of the grant for teen driver safety programming for our students with the remainder designated to a Commons renovation for our entire community to enjoy.

### Spotlight **On** E3: Experiential Engineering Education

Totino-Grace launched the E3 Engineering Institute in the fall of 2013 with the first cohort of applicants, sophomores from the class of 2016. An average of 32% of students from the sophomore, junior and senior classes participate in the Engineering Institute. Next fall, 38% of our current freshman class will enter the program. E3 Co-Director Dan Vandermyde is especially excited to see so many young women exploring this opportunity, explaining, "The number of young women enrolled is statistically higher than the national average for women seeking college engineering degrees. Through the Institute, we hope to encourage and support their pursuit of science, math and engineering studies in college."



of Hello Dolly Photography)

Designed to meet the needs of students with aptitude for science, technology, and

mathematics, E3 students are challenged with a rigorous curriculum that includes coursework focused on engineering. Students are introduced to the fundamentals of engineering and work to apply those principles to a variety of experiences, including their senior capstone project. In addition, they explore academic opportunities in Computer Science, CAD, woods and metals and visual arts.

The development of critical thinking, technical writing, public speaking, and collaborative, project-based learning is heavily incorporated into the curriculum - important skills to master for success in any career, particularly engineering.

Totino-Grace opened the E3 Lab in August of 2015. Unique features of the space include an idea wall, movable work stations, collaboration spaces, and fabrication areas including dedicated space for the 3D printer and laser cutter. The flexible classroom and work space provide students with an opportunity to brainstorm, collaborate and create together.

Throughout the three-year program, students participate in a dozen or more enrichment activities such as seminars, worksite field trips, lab tours, and guest seminars. Prior to their senior year, students complete a job shadow or fieldexperience practicum to experience the day to day responsibilities of engineers by observing professionals in the workplace. According to the National Science Foundation's National Center for Science and Engineering Statistics, **women represented** 

# 19.2%

of **undergraduate enrollment** in engineering programs in 2012. Females represent just over

33% of the Totino-Grace Engineering

## Institute's total enrollment.

Source: http://www.nsf.gov/statistics/2015/ nsf15311/digest/theme2.cfm#engineering



### E3 VIKINGS STADIUM TOUR

During the course of the program, students visit at least nine different firms or companies including Medtronic Operational Headquarters in Fridley, Target Headquarters in Minneapolis and U. S. Bank Stadium.

Unlike any other high school STEM or engineering program, Totino-Grace's Engineering Institute features a mentoring component. Each E3 student is connected to a professional mentor who works with them throughout their three year commitment. The mentoring relationship provides students with an authentic view of the engineering profession, awareness of the personal and interpersonal skills required to succeed, and connections with professionals and businesses in our community. Mentors provide valuable insight and perspective on engineering-related experiences as well as recommendations for education and career opportunities.

John Burnes '89 is a Research and Development Program Director at Medtronic. He also serves as an E3 mentor and his daughter is currently an Engineering Institute student. He shares the following thoughts from his unique perspective: The E3 Program has provided the students a unique opportunity to learn some basic engineering principles, understand the diversity of engineering disciplines, and see different ways engineering is practiced in a variety of companies. These experiences will help the students better understand what engineering is all about and provide them a clearer picture of where an engineering career can take them. Without a program like this, they would likely be "blindly" choosing to study engineering in college with little first-hand understanding of what it really means, or worse yet, choosing not to pursue engineering because they didn't understand there are many different paths within the field.

Matt Thibodeau, program Co-Director, believes, "Our world is constantly changing with new problems to solve. I think our students are going to be the future engineers who will help our society and make our world a better place." The Engineering Institute provides a solid and inspiring foundation for these students to plan for their future education and careers and realize the impactful work of engineers in a multitude of professions and industries.



Learn more about the Totino-Grace Engineering Institute at **www.totinograce.org/engineering\_institute** 

# Totino-Grace's First E3 Cohort **Completes Engineering Institute**

This spring, Totino-Grace seniors presented their Capstone projects, the culmination of nearly a year long undertaking. Teams of students applied the engineering design process to an existing, real-world problem. Their work entailed

"The entire process, from start to finish, helps our students to practice the skills that are needed by engineers and professionals in any industry."

conceptualizing, designing, fabricating, testing and presenting a functional product or system. In March, they presented their results in a public exhibition followed by more in-depth Capstone presentations. Program Co-Director Matt Thibodeau explains, "The coursework has prepared them to approach and develop the framework of their Capstone project in the scope of the engineering design process. In addition, they have to conduct extensive research and apply public speaking and presentation skills. The entire process, from start to finish, helps our students to practice the skills that are needed by engineers and professionals in any industry."

Students were challenged to choose a problem to solve and create a unique prototype of their solution. Throughout the process, students conducted research, consulted with industry professionals and their mentors, and designed and modified prototypes. Projects varied, from a fingerprint lock and a golf simulator app to an ice fishing live well. Students experienced firsthand the challenges and successes that engineers face when creating or modifying solutions to new and existing problems.



### CONCUSSION DETECTING HELMET LEWIS KIDD AND CONNOR MULLEN

Lewis Kidd: It was very exciting to see our final design actually doing what we programed it to do. Our project was successful, but we did run into issues with coding for our Bluetooth. Unfortunately, we did not have enough time to continue our research for a resolution. Our biggest takeaway was realizing that if you run into a problem with the design, there is almost always a solution around it. Nothing you do is going to work out perfectly as planned so just be prepared to make mistakes and learn from them.

### PULSE SENSOR BRACELET CAITLYN TIGNER AND ABBY PALMA

Abby Palma: We were able to create a device that read an individual's pulse and then sent the information wirelessly



### **PIONEERING MEDTRONIC INTERNSHIP**

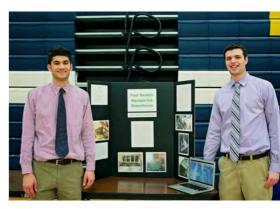
When Abbey Holscher examines her Engineering Institute experience, she reveals, "The E3 program provides a great opportunity to figure out what you like and have a better understanding of the field you want to go into. You can jump right into that your freshman year of college." Her initial interest in the engineering field was strengthened by her participation in the program and next fall she will attend Iowa State with plans to major in mechanical engineering with a minor in biomedical engineering.

Abbey's connections and opportunities through the E3 program provided a unique opportunity to pilot a new high school internship at Medtronic. Mark Breyen, who leads a global R&D organization at Medtronic that focuses primarily on serving the needs of nearly 400 million people worldwide with Type 2 diabetes, has worked with Totino-Grace to coordinate their field trip experience at Operational Headquarters in Fridley. He explains, "STEM and similar programs in US schools have grown youth interest in engineering and Medtronic is committed to bridging the gender gap. Abbey is a great choice for this new opportunity for high school students. The goal for these internships is to engage and mentor prospective engineers, providing them with hands-on experiences that will benefit them personally while connecting them to the greater Medtronic mission to contribute to human welfare." Abbey will put her skills to use in an engineering lab, working alongside professionals by assisting and supporting their work. She adds, "I'm very excited for the opportunity I was given to intern at Medtronic this summer. I have a general idea of the profession I plan to pursue in mechanical engineering, so I hope this solidifies that and gives me a better understanding of which path I should take."

### E3 Engineering Institute

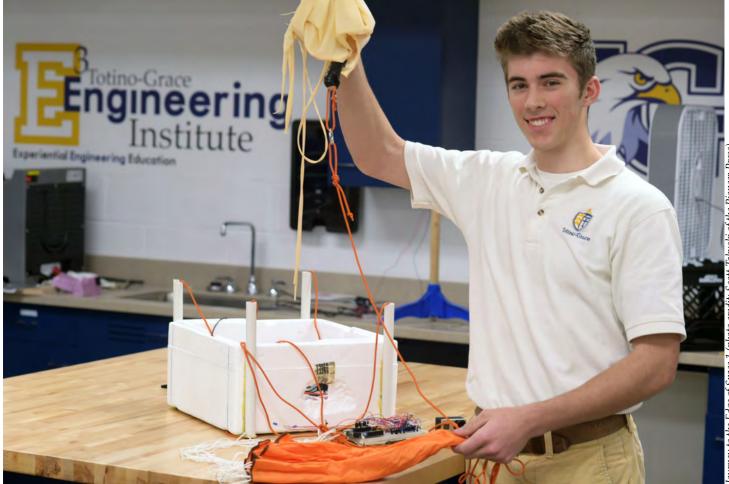


to their phone using an app we created. The most exciting part of this experience was being able to create something on our own having no previous experience and with little help. We loved creating a device that later could be used to help people if the product was brought up to FDA standards.



### INDOOR/OUTDOOR AQUAPONICS GREENHOUSE SYSTEM NICK JACOBS AND TOMMY PAAL

Tommy Paal: Our aquaponics system is now running with heat and the pump controlled automatically. In addition to our online research, we consulted our mentors and experienced professionals about the project who provided help with constructing our project and setting up an automated system for our heater. This was the first time I have been able to take something from just an idea to a full scale working product. I was able to see and experience the process of designing, building, testing, and redesigning a project, which helped me learn about how some engineering projects work in the real world.



### SENIOR CAPSTONE PROJECT MAKES THE NEWS

Jens Rataczak's Capstone project captured the interest of local media and coverage of his experience was shared with audiences across the Twin Cities and beyond. On January 31, Jens launched a high-altitude weather balloon into the stratosphere and captured images of the curvature of the earth, tracking the balloon's location and altitude throughout its flight. Jens indicated that during the research and



development phase, he came across a number of similar projects online but wanted to take his to the next level. He designed devices to measure temperature, pressure, altitude, and acceleration in addition to audio and visual recording. Christopher Gosch '12, who studies aerospace engineering and mechanics at the University of Minnesota and is the team lead of the NASA-Minnesota Space Grant Consortium at the U of M, was able to offer assistance to Jens throughout the project.

Although the launch started with some challenges (the balloon needed additional helium after it was sealed) the project was a great success. Jens' footage of the burst at approximately 107,363 feet was picked up by media outlets and led to television and print features. He reveals, "At first I was surprised that my project was interesting and intriguing to the reporters, but was happy to provide more context and help them share my experience with others. Seeing coverage of my project in the news was amazing. I was really happy to represent Totino-Gace and the E3 program."

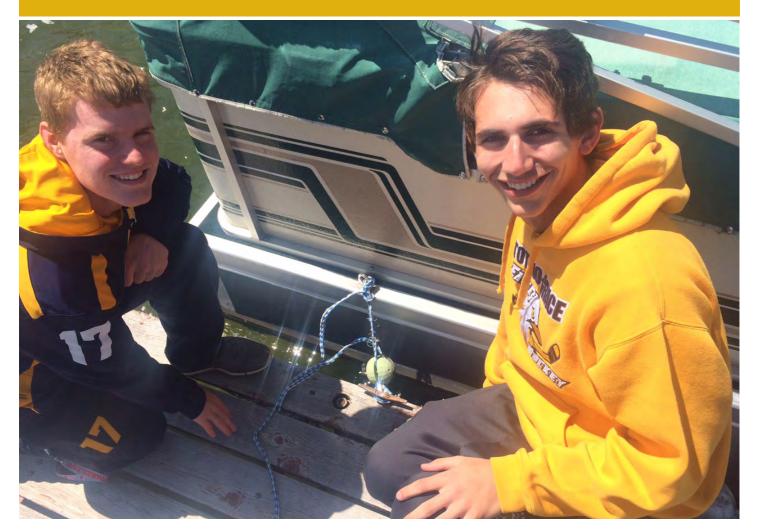
Jens reflects on his experience in the Engineering Institute as he prepares to study aerospace engineering at Notre Dame, "It's been a huge eye opener, showing me what engineering is all about and what engineers do. Engineers are involved in solving every day matters like how to improve a coffee brewing device to global issues like addressing water pollution. This program has expanded my horizons and helped me pursue my academic and personal interests, opening doors in ways I never thought possible."

### **PURSUING A PATENT**

Luke Bonfe and Nick Holtan developed their idea for a Rope Grenade after a difficult experience boating on a windy day. Nick recalls, "Luke and I had a hard time tying our boat up while holding it away from the dock, trying not to scratch and dent it. We immediately came up with the idea for the Rope Grenade." Luke shares, "Our product uses a slip knot and clamping mechanism. The rope goes through the device and circles back, creating a loop that sticks out. This loop is thrown around the dock's pole or cleat and the rope is pulled tight. When the boat is at the right distance from the dock, a knob on the product is turned and the two halves clamp tightly around the rope, preventing the loop from coming undone. Instead of tying complicated knots to prevent the boat from floating away, our product provides a quick and easy way to hold the boat in place." Nick adds, "We spent the hours we had in class to develop our prototype. Through research, trial and error, we came up with what we thought was the best solution."

The team then partnered with Daren Klum (Founder and CEO of Secured2) who helped them with the original design, Tom KraMer (E3 Mentor, President and Managing Principal at Kabloee Design) who provided the materials, and Craig Walker (past parent, Marketing Director at Invest Cast Inc.) who cast the steel from their CAD design prototype.

Nick and Luke are currently in the process of applying for a patent for their Rope Grenade with the assistance of Daren, who has several patents himself.



Learn more about the Totino-Grace 2016 Engineering Institute and Capstone Projects at www.totinograce.org/engineering/E3-Capstone



# Lifelong Learners

One of the most unique benefits for students in the Totino-Grace Engineering Institute is the mentorship they receive from professionals in the industry. The outstanding interest and support from graduates, current parents and past parents solidifies the importance of service within the industry and giving back to a community who has impacted on their own educational and personal experience. E3 mentors work with their student partners throughout the three year program, connecting regularly to offer support and guidance on coursework and capstone projects as well as offering personal perspective on engineering education in college and professional experiences and opportunities. Our sincere thanks to each of our alumni mentors.



## <u>alumni mentors</u>

Ben Albers '07 Christina Bangasser '06 Paul Bezdicek '01 John Burnes '89 James Center '96 Peter DeMuth '04 David Fautsch '08 Michelle Ferkul '07 Kale Fischer '07 Dan Fox '97 Anne Fundakowski '04 Laurene Gacek DeMuth '79 Christine Gorzycki '11 Angela Greising Lynch '06 Sarah Greising '00 Rick Hanton '06 David Heisler '85 Michael Hinrichs '12 Spencer Jackson '12 Andy Johnson '01 Jessica Johnson '04 Peter Jorgensen '09 Krisi Legatt Flury '91 Clark Lensing '05

Andrew Lind '05 Jeff Lind '07 Chris Loth '01 Traci Moe '08 Joe Murray '11 Michael Nagel '09 Nicholas Nagel '08 Earl Rasmussen '74 Dan Reitemeier '04 Angela Rodgers '85 Vania Romay Deeney '08 Michael Schmitz '88 Mandy Scott '08 Katherine Shermoen '12 Katherine Shudy Narog '88 David Stechmann '02 Adam Stein '01 Brandon Stenglein '03 David Svea '89 Yvete Toivola '94 Shannon Warchol '09 Danny Wind '09 Joshua Yeung '06

### Lifelong Learners



#### MENTOR CONNECTION

Totino-Grace senior Anna Kinnan and her mentor, Angela Rodgers, reflect on their experience working together, discovering and pursuing their passions, and women in engineering.

**Anna Kinnan:** I remember calling her for the first time and being very nervous to be able to find a common ground and have a good conversation. She immediately made me feel comfortable and the conversation was easy because we had a few things in common such as track, medicine (as she works at Medtronic and I am interested in nursing), and of course engineering.

Angela Rodgers: We connected several times each year. As a mentor, I received glimpses into her high school experience and was able to provide guidance on projects and offer advice. I can't believe how smart high school kids are today! Their poise and Pictured left to right: Anna Kinnan '16, Angela Rodgers '85 and Anna McGrath '16 at the E3 site visit to Medtronic Operational Headquarters in Fridley. Angela, an Engineering Manager at Medtronic, served as Anna Kinnan's mentor through the Engineering Institute.

thoughtfulness is well beyond where my classmates and I were in our teens.

**Anna Kinnan:** In addition to check-ins I would call Angela for help if I was in a jam and didn't know what to do next on a project. She even coached me through a difficult project with conflict among group members, offering advice on how to handle the situation with grace and firmness.

Although I am not going to pursue engineering as a career path, the program was valuable in helping clarify my own strengths and interests and what I envision as a future career based on those discoveries. She provided important insight based on her own experiences and helped me to better understand what I would be getting into and what my lifestyle may look like if I became an engineer. Since Angela is a biomedical engineer, I got a sneak peek into the tools and systems behind the medical field, giving me even more reason to continue to pursue my interest in a nursing career. I feel very confident in my decision and Angela is the person who, inadvertently, helped me solidify the kind of life I want to live and the career I want to pursue.

Angela Rodgers: The Engineering Institute offers students the incredible gift of developing a plan. Through education and experiences these students are able to discover what they are or are not passionate about.

Learn more about Engineering Institute Mentor opportunities visit www.totinograce.org/engineering/mentors



Through their coursework, site visits, and mentors, students gather the information they need and draw from many resources to frame their best view of the future. It was great to see Anna grow from not having a plan to being confident in her choice to pursue nursing.

I was led to the engineering field because my dad had a couple of engineering degrees and my four older siblings pursued professions in the engineering and science industries. These influences directed my path. I think the E3 program provides a similar influence on students through exposure to technical fields and encourages the development of math and science studies and skills.

Seeing the number of young women in the program is inspiring to me. There is still a lot of work to be done in the industry to encourage women to pursue engineering and it is disappointing that the numbers aren't changing significantly from when I was in college. Our country needs women in technical fields and programs like this can be a great component of change.

### INSPIRING AND CONNECTING WITH OUR PARTNER MIDDLE SCHOOLS

The Engineering Institute has established a unique partnership with several local Catholic grade schools. The collaboration is intended to expose middle school students to the engineering design process and work through the steps in cooperation with E3 students. This year, Totino-Grace partnered with Catholic grade schools Epiphany, Frassati Academy, St. Odilia and St. John the Baptist (pictured) for an engineering design challenge: build a tower that can hold the most weight. The challenge was introduced to the middle school students who



### Lifelong Learners





then worked in teams to develop designs and prototypes. Totino-Grace E3 students served as mentors to their partner teams throughout the process, offering feedback on designs and data, and working with their partners during their visit day.

Engineering Institute Co-Director MattThibodeauhasenjoyed observing TG students in this leadership role, explaining, "It has been really fun to see our kids being leaders and mentors to the younger students. In a sense, they are applying the benefits of their own mentorship experience and approach this connection with a sense of pride in sharing their knowledge and experience."

### Mission **Possible** TG Partners with Medtronic for Diabetes Device Challenge: An International Effort to Improve Diabetes Testing

The Engineering Institute returned to Medtronic Operational Headquarters in Fridley this spring for a site visit. E3 Co-Director Matt Thibodeau worked with Medtronic staff to enhance the students' experience this year with a real world challenge. Two weeks prior, juniors were presented with a problem Medtronic engineers were working to address: improving the glucometer device and process for diabetes screening in India. John Burnes '89, Research and Development Program Director, elaborates, "This challenge was conceived by Mark Breyen, who participated in the Medtronic Foundation Global Innovation Fellows program, which sends diverse teams of Medtronic employees around the world to work with governments and non-profits to address a basic healthcare need within local communities. Mark leads a global R&D organization that focuses primarily on serving the needs of nearly 400 million people worldwide with Type 2 diabetes. He went to rural India where the local government was struggling to identify and treat people with diabetes and came back with the challenge of how it can be done safely, prudently, and efficiently."

"This is definitely something other high school students don't have exposure to. It was a really special opportunity for us that aligned with our school's mission of helping others and society."

The assignment, in the spirit of the ABC television show Shark Tank, sparked a lot of enthusiasm and excitement in the students as they worked in teams on the glucometer device and process challenge. Ben Jaeger '17 recalls, "It was interesting to learn about the many constraints engineers and companies face, from financial restrictions to standards in the medical industry and meeting deadlines. Our teams were able to select a problem to solve and put to use the elements of the engineering design process. At times it was difficult to narrow down our ideas as there were so many possibilities. Before our Medtronic visit, we shared our solutions in class to get peer feedback, which proved to be beneficial in sharpening our presentations." Shannon Murphy '17 adds, "I found it really interesting to see how our team collaborated with each of us applying unique skills. One of my partners was really great at CAD design while another was better at verbally communicating and



John Burnes '89 works with juniors James Challou and Ben Jaeger during their Medtronic site visit. presenting. It highlighted how each individual contributes to a team with their interests and talents."

The presentations to a panel of Medtronic engineers left the professionals highly impressed. Brian Bechard '90, Market Development Consultant and Technical Fellow, shares, "The Shark Tank experience was a great opportunity for students gain experience conveying to technical information in a concise and compelling way, an often overlooked component of success in a technical discipline. I was very impressed with how the students approached the diabetes challenge, prepared materials and presented their solutions. There were certainly standouts of how some approached the more advanced business elements of manufacturing and distribution, and thought beyond the assignment parameters - very inspiring to see! Overall a great group of students and I appreciated the occasion to spend time sharing with and learning from them." Mark Breyen indicates, "The experience was great for all of us. What I found very interesting was that some of the ideas the students shared were similar to modifications we were already implementing. We were



Isabel Sommers '17 (left) and Shannon Murphy '17

really impressed by the thought and planning that went into their solutions and presentations. The students came up with some great ideas that I will be sharing with the local Indian healthcare officials."

E3 students certainly understand the uniqueness of the partnership with Medtronic. Ben specifies, "This is definitely something other high school students don't have exposure to. It was a really special opportunity for us that aligned with our school's mission of helping others and society." John shares, "The Medtronic Mission was written by founder Earl Bakken in 1960 and guides our day-today work. The diabetes device challenge was a wonderful combination of the Medtronic Mission tenets of citizenship and contributing to human welfare with the TG mission of social justice and responsibility in the world community. All Medtronic employees are motivated by the fact that the therapies and solutions we develop save or improve lives of millions of people each year. These students can be successful in many ways throughout their future careers, but having a career that makes a positive difference in the lives of other people is something that is personally



fulfilling. " Mark Breyen also identified the value of leading by example, "The Medtronic partnership with Totino-Grace is an opportunity for us as engineers to pay it forward as well as share the message of giving back and recognizing the benefit of these opportunities. We encouraged the students to always give back as the experiences they have in this program will have a real impact on their futures."



A key element of our mission as a Catholic high school in the Lasallian Tradition is to challenge students to serve others, especially the poor, and to deepen within them a sense of responsibility in the world community. The Catholic Church's social teaching helps guide our school as we emphasize social justice education and action through our mission, curriculum and campus ministry programming. This spring the Engineering Institute provided an opportunity to put this mission and the charisms of our founders into action through a partnership with Medtronic Operational Headquarters in Fridley.

Saint John Baptist de La Salle Teaching Minds and Touching Hearts

Blessed Theresa Gerhardinger Transforming the World through Education

Visit **www.totinograce.org** to learn more about our mission, ministry and Catholic Lasallian education



## Advancement Updates

### TG CUP

Join your fellow alumni at the fourth annual TG Cup on Monday, August 8, at Columbia Golf Club in Minneapolis.



Registration begins at 9:30 a.m. with a shotgun start at 11:00 a.m. A social hour and buffet dinner will follow the tournament. Take advantage of early bird registration of \$100 per person by July 22. Reserve your spot now at totinograce.org/TGCup. Contact Jon Delwiche at jon.delwiche@totinograce.org or 763-913-6004 with registration questions or to learn about sponsorship opportunities.

### **TOTINO-GRACE CELEBRATES 50 YEARS**



This fall marks the 50th year since Archbishop Grace High School opened its doors to the first class of freshmen in 1966. The Totino-Grace community is excited to celebrate with students, alumni, current and past parents, faculty and friends! We are grateful

to all who have helped us reach this amazing milestone and cannot wait to see what the future holds for our outstanding school. Golden anniversary celebration details will be shared in the coming months. Visit totinograce.org/50thAnniversary for the latest news and updates.

### Mark your Calendar Today for these Upcoming 50th Anniversary Events:

- First Day of School, 50 Years Later September 2
- Homecoming Week October 3 through 7
- Oktoberfest October 8
- Center Stage March 9-12
- Legacy Awards Night Date to be determined

### GET INVOLVED AT TG!

Volunteering is a great way to get involved, meet other community members, and support the school's mission. We truly appreciate the time and talents shared by our volunteers and with your involvement we can continue to strengthen our outstanding community. If you're interested in becoming a Totino-Grace volunteer, visit totinograce.org/volunteer.

Available Opportunities:

- 50th Anniversary Celebrations
- Winter Place Gala
- Hospitality at school events
- Engineering Institute Mentor
- Parent Ambassador
- Golf Tournament Committee Member

### SHARE A STORY

Do you have exciting updates to share with the TG community? Maybe you recently got married, welcomed a child, received an



award or accomplished a career goal. Whatever it is, we want to know! Please share your updates with us by completing our online update form at http://bit.ly/tgnewsform or email tgalumni@totinograce.org.

### STAY CONNECTED

Are you receiving our monthly e-newsletters? Are you up on the latest TG news? Stay connected with Totino-Grace through social media and be sure to provide us with your most current contact information. Visit http://bit.ly/ tgnewsform to update your contact information

and connect with TG on Facebook, Twitter and LinkedIn.

### Foundation **Builders** Paidosh Family

Chris and Laurie Paidosh are dedicated members of the Totino-Grace community committed to the success of the school through their ongoing support. Chris graduated in 1973 and the couple has been involved in the life of the school in many ways during and after their children's attendance. Alexandra '08 earned her undergraduate

degree in Mechanical Engineering from the University of Minnesota. Her graduate studies took her to Switzerland, where she earned a Masters Degree in Mechanical Engineering from École Polytechnique Fédérale de Lausanne, and is now a doctoral student at ETH Zurich (Swiss Federal Institute of Technology in Zurich). Her Ph.D. topic is Computer Design Methods for Production with Additive Processes (e.g. 3-D Printing). Post studies, she plans to live in Switzerland and apply her degree in the business world. Nicholas '11 attended the University of Minnesota, Carlson School of

"We are most impressed with the Lasallian heritage and values of faith, learning, community and service that are core to the development of a well-rounded individual.

challenging track and cross country runs with the "runners click" under the ever watchful eye of Brother George. He was a student in Mr. Nigon's English class before he became Dean of Students, enjoyed Bud Pappe's World Cultures and had Br. Leonards for history. Chris was well prepared for his studies at the U of M due to the influence of the

mathematics, chemistry and physics departments. He notes, "My studies and teachers at Grace factored into my later success at the University of Minnesota Institute of Technology, especially Mr. Thompson's Honors Math class."

As parents, Laurie and Chris share special memories of Totino-Grace, sharing, "We believe the ever-present, strong, welcoming community to all who interact with TG is the lifeblood of the school. We met and became good friends with many fellow show choir parents and attended trips for both our children. We had the

Business where he received a Bachelor of Science in Business and a Masters Degree in Accountancy. He is completing his CPA examinations and is currently employed at the Minneapolis office of Ernst & Young in Assurance Services. His future plans include pursuing an MBA and exploring a career in consulting or banking in New York or San Francisco.

Highlights of Chris's years at Grace High School include fan bus rides to Collegeville and football games against arch rival St. John's Prep in the Don Bosco Conference and pleasure of watching the 2009-2010 Company of Singers go undefeated nationally with the "Anything Goes" show. We would encourage all parents to ask their children to consider this great opportunity to perform on stage, and meet lifelong friends, as it makes you confident and fearless in what you do in the future." They also spent time on the lacrosse sidelines to cheer for both Allie and Nick and their teammates. The couple has attended the annual school gala since 2004, and recall that Winter Place has always offered an evening of fun, fellowship, and fundraising for a great cause.



Chris and Laurie served on the Show Choir Spectacular Committee for seven seasons, volunteered for the Senior All Night Party and contributed as advisory group members for recent Strategic Planning and Capital Campaigns. In addition, they have supported the recent Fine Arts building expansion and Inspiring Performance Campaign, contribute to the TG Fund and Lasallian Scholarship Fund, and serve as President's Council members. Being active in the life of the school has provided Chris and Laurie with an opportunity to witness the community's continued strength, expressing, "We are most impressed with the Lasallian heritage and values of faith, learning, community and service that are core to the development of a well-rounded individual. TG leadership and faculty have remained committed to the school's operating principles, but flexible in their approach to meet the changing needs of the broader community. We have always appreciated the balance of academics, arts, and athletics to fully develop students and provide a welcoming environment to learn and grow."

The addition of Totino-Grace's Engineering Institute has been especially exciting to the family as both Chris and Allie are engineers. Chris suggests, "The recent addition of the Engineering Institute to nurture interest in the sciences through intellectually challenging curriculum and experiences has elevated the academic program. The E3 program is a great way for students interested in science and engineering to get exposure to what scientists and engineers do on a daily basis. Students learn that there are many different engineering fields and the variation is almost endless. I spent time with these students when they visited Medtronic last year and found them to be inquisitive and engaged. I am most encouraged by the number of young women I see in the program. I believe many women do not consider this rewarding career path because of preconceived notions. As the father of a daughter who is an engineer, it is important for women to know that science and engineering is not only about cars, trucks and aircrafts."

When asked to share why the Paidosh family continues to share their time, talent and treasure, Chris explains, "As a former student and parents of two graduates, we are grateful for the solid, Christian values the school instilled in our children, and the springboard it gave them for their post high school pursuits. We consider our financial support an opportunity to pay it forward because TG served as a solid foundation for me and our children to lead successful and rewarding studies and careers. Our wish is that many more students have this same opportunity."

## Class Notes

- 1977 Utilizing her experience of living in Rush City for 35 years, Pat Schommer recently accepted a brand new position as Administrative Director of the Metropolitan and Rural Physician Associate Program of the U of M's Medical School. Here she promotes unique year-long longitudinal learning opportunities for medical students in rural communities and underserved metropolitan areas to increase the workforce dedicated to these areas. Pat is also a 2014 Governor Davton appointee to the MN Board on Aging.
- **1979** Former Dallas Stars broadcaster **Ralph Strangis** is heading back to school to finish his degree at the University of North Texas. Strangis was the play by play announcer for the Dallas Stars from 1993 to April of 2015. He has left his long-time career in hopes of pursuing a profession in teaching.
- 1997 Congratulations to Jordan Herzog who was announced the Wayzata Public School's Employee of the Month for January. Jordan is a 6th grade teacher at Central Middle School in Wayzata. According to their press release, "Jordan is a master at making all of his students feel like they are the center of the room. His genuine interests in students' lives and his drive to make sure everyone is involved motivate students to learn, and his energy for teaching creates an inviting atmosphere for all who enter."
- **1998** Sara Roerig welcomed the birth of Alexander Joseph Luger on February 11, 2016.

Congratulations to Totino-Grace alumni and brothers John Pitzl

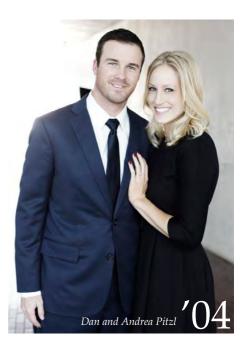
and **Dan Pitzl** '06. Their firm Pitzl Financial was named one of the Top 10 Best Financial Advisors in Minneapolis, St. Paul, and Edina by Advisory HQ, an online news media publication.

- **1999** After many years working as a bartender and manager, **Eric Cameron** achieved his goal of having his own place. In April, Eric and his wife, Jill, celebrated the completion of their first year as owner/operators of Cam's Bar and Eatery located at 63rd and Boone in Brooklyn Park.
- **2000** Natalie King welcomed the birth of Xander Daniel on October 2, 2015.
- 2002 Rory and Jen Suess Cardinal welcomed Stella McKenzie on March 22, 2016.

**Sara Spiess Carkoski** and her husband, John, welcomed children Jason Ronald on May 7, 2014, and Antoinette Elizabeth on January 27, 2016.

2003 Foodsby is a growing food delivery company that was









- started by Ben Cattoor in 2012. Today, Brian Salzer '07, Jake King '08, Aaron Hildebrand '07, and Jack Tousignant '11 are working together at Foodsby. The company has expanded from Minneapolis into Dallas, Denver, Des Moines, and Atlanta and by 2017, they plan to be in 50 markets throughout the United States. Brian Salzer says, "The coolest part about the business is that we are the first business of our type."
- 2004 Lindsey Merritt and Dan Brueske welcomed the birth of Emma Rae on August 24, 2015. The couple married on November

22, 2014 in St. Paul and the wedding party included Joey Brueske '10, Kyle House '04, Aaron Georges '04, Justin Carroll '03 and Pete DeMuth '04.

Andrea Shamp married Dan Pitzl '06 on August 22, 2015. The ceremony took place at St. Charles Borromeo Church. The couple now lives in St. Anthony Village. Another fun fact: their siblings Katie Shamp Pitzl '02 and Tom Pitzl '01 are also married.

2005 Ahmad AbouAish and Samantha Johnson '07 were married on August 9, 2014, at St. Raphael's Catholic Church in







Alexandra and Joseph Manatt







Crystal. Kendra Johnson Williams '05 and Kristina DeMuth '07 were included in the wedding party.

2006 Drisana Sandeen married Bryce Clifton on June 20, 2015 in Lake Elmo. Members of the wedding party included McKenzie Hennessy-Purdy '06 and Sara Riley '06.

> Alexandra Guzik married Joseph Manatt on August 8. 2015, in Des Moines, Iowa. Her brother, Paul Guzik '09, was a groomsman.

**Angela Greising Lynch '06** and her husband, Brian, welcomed the birth of their son, Walker Brian on December 7, 2015. The couple reside in San Diego, California, where Angela is a Senior Biologist at Eli Lilly & Co.

**McKenzie Hennessy-Purdy** and her husband, Mark, welcomed Emerson Rose on August 20, 2015.

Adam Quade and his wife, Katherine, were married on November 28, 2015, at St. John the Baptist Catholic Church in New Brighton. The wedding party included Ryan Gleason '06, Weston Poucher '06, Charlie Nesser '06, Sean Steinhauser '06, Rob Quade '14, Mackensie Quade

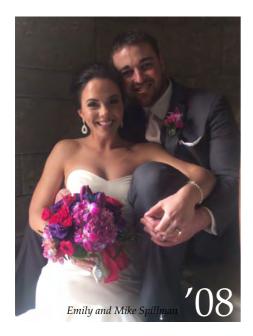


**'10**, and **Nicholas Quade '00**. The couple began dating while studying abroad in Australia with CSB/SJU and currently reside in Golden Valley, MN. Adam works as a Product Manager at Patterson Dental.

- Tony Sadder and Colleen Kelly '09 were married on June 27, 2015, at the Church of Assumption in St. Paul. The wedding party included Charlie Sadder '03, David Sadder '03, Ana Kelly '08, Caitlin Kelly '13, Dan Pitzl '06, Kevin Carney '06, Justin Rajtar '08, Sophia Nesser '09, Renee Cattoor '09, and Paige Frandsen '09.
- 2007 Kristina DeMuth is a Master of Public Health, Registered and Licensed Dietitian. In January 2016, Kristina launched her own private practice, Kristina DeMuth, LLC. She provides services for individual and family nutrition coaching, health and nutrition writing, recipe development, nutrition fact checking, food photography, and more. She frequently blogs about healthy living, shares recipes, and provides insight from her travel adventures around the world. Her dream is to someday combine her business with her passion for helping children in Haiti to have







access to healthy food and nutrition education. To learn more about Kristina's services and offerings as well as updates on her work experiences, stop by her website, kristinademuth. com.

2008 Sara Rodgers married Oleg Gamayunov on October 31, 2015 at Saint Michael Catholic Church in St. Michael. The bridal party included Angela Rodgers Hickman '06 and Stephanie Gooley '08. The couple resides in Ramsey and are expecting their first child in September of 2016.

**Traci Pastoors** and **Andy Bennington** were married on January 9, 2016, at St. Odilia Church in Shoreview.

**Jordan Marshall** and his wife, Bri, celebrated their wedding on September 6, 2015, at Grand View Lodge in Nisswa.

**Emily Engbloom** married **Michael Spillman** on March 5, 2016, at Our Lady of Victory Chapel at Saint Catherine University in St. Paul.

**Brittany Slipka** married **Sam Verschaetse** on November 21, 2015, at St. John the Baptist in



Broken Skull Challenge. The reality competition show began airing in January 2016 on CMT.

Jake and Katie Cossack King welcomed Grace Elizabeth on Tuesday, November 11, 2014.

2010 Shannon Hanly married Jesse Richardson on July 18, 2015 at the Church of Sacred Heart in Robbinsdale.

Congratulations to **John Crockett '10** for being promoted from the Green Bay Packers practice squad on December 3, 2015. During preseason, Crockett led the Packers in carries and yards.

2011 Adam Braun and Shannon Kern were married on June 27, 2015. The wedding was at St. Bart's in Wayzata and the reception was at the Muse Event Center in Minneapolis. Adam graduated from Augustana University in Sioux Falls, South Dakota, while Shannon graduated from Creighton University in Omaha, Nebraska. Now they are both working in the Twin Cities and are excited to be back in Minnesota, close to family and friends.



New Brighton. The bridal party included **Abbie Slipka '09, Michelle Farley '08, Katie Perovich '08**, and **Erin Kastenmeier '08**.

**Stacey McMullen Ohumukini** and her husband, Victor, welcomed Sofia Maydell Pualani on August 19, 2015.

Katy Trost married Joseph Husby on September 26, 2015 at Roseville Lutheran Church. The reception was at Hillcrest Golf Club. The wedding party included Joe Trost '08 and Michael Trost '10.

Andrea Nisler competed on the third season of Steve Austin's



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To reduce costs, Totino-Grace mails one copy of the Continuum per household.





WINTER PLACE GALA

SATURDAY, NOVEMBER 19, 2016 TOTINO-GRACE HIGH SCHOOL

WWW.TOTINOGRACE.ORG/WINTER\_PLACE\_GALA