

Engineering @McLennan

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Fall 2019

What's Happening

The 2018-2019 academic year was a successful and exciting one for MCC's engineering program. Our enrollment stayed strong, and our students found opportunities to excel both inside and outside of the classroom. This year we once again traveled abroad and this time, on top of visiting London, our itinerary included several cities in Italy. As a result, we will be adding a new installment to our travel guide series, written by the students who attended the trip and including semester-long research papers: "When Nerds Travel in Packs: Rome, Florence, and Venice." The trip was so popular with our students that we plan to visit more Italian cities for the 2020 travel course.

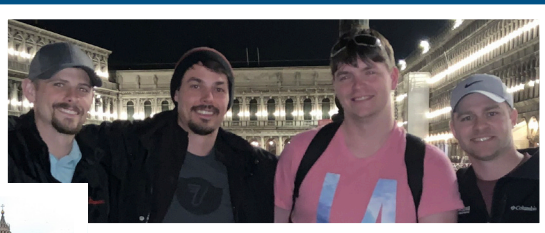
Our students continued to shine in their internships, co-ops, research, and conferences. A group of students and faculty attended the SOLIDWORKS World 2019 conference in Dallas. Additionally, our students in the Engineering and Physics Club had a very productive year. They held several fundraising events and ran our very successful Extra Life charity event, benefiting McLane Children's hospital.

Our program is now 10 years old! We have come a long way, and there is still a lot to look forward to. We will continue working hard to find our students opportunities to network



and to build strong relationships with our community partners. We are also adding new course offerings in a variety of times and formats (face-to-face, online, blended, and two-way).

We have a new goal in mind to celebrate this great milestone for the program: we aim to establish an endowed engineering scholarship that will help engineering students for years to come. We appreciate all of the strong support we have received over the year and are looking to the future with enthusiasm and delight, as we get to see new faces in our classrooms and our alumni flourish. We are looking forward for the next 10 years and beyond!



Special Mention

Johnathon Kiebler was named the McLennan Community College Distinguished Leader by the Highlander Alumni & Friends Association. He credits his success at MCC to saying yes to every opportunity. He and his wife tied the knot this summer and headed out to Texas Tech, where Johnathon is studying Chemical Engineering. With a passion for alternative forms of energy and their use in an atmosphere that differs from Earth, he has plans to get a STEM MBA and later a Professional Engineering license. Says Johnathon, "I want to lead my family and the world to a cleaner future and, hopefully, help pave the way for life on Mars!"



Faculty Spotlight

Michelle Powell, Ph.D. may be a familiar face to you even though she is not *officially* a part of the Engineering department at MCC.

Dr. Powell is the EDUC 1100: Learning Framework instructor who teaches the

infamous Linked course with specific sections of Intro to Engineering each fall.

Dr. Powell grew up in Maryland and completed her undergraduate work at Gettysburg College in Pennsylvania.

She taught in Marlin and Waco ISDs before attending graduate school at Baylor University. Dr. Powell earned her M.S. in Ed, Curriculum and Instruction, and then her Ph.D. in Educational Psychology. While at Baylor, Dr. Powell taught several education courses, including College Reading and Study Skills, a course similar to the EDUC 1100/1300 Learning Framework courses she teaches here at MCC. Dr. Powell has been teaching here for six years, five of which have included the Linked Intro to Engineering/Learning Framework option. Linked is one of her favorite teaching experiences each year.

In her abundant (!) free time, Dr. Powell enjoys reading trashy romance novels, eating chocolate, running, and yoga. Dr. Powell has been lucky enough to go hiking in the Rocky Mountains during the past few summers. Please ask her about her favorite hikes!

International Travel

This year we were once again fortunate to take a group of nine Engineering Economics students and four research students on our International Engineering travel course. Traveling this year as sponsors were Dr. April Andreas and Professor Paulina Sidwell from Engineering and Dr. Ivanna Campbell from Chemistry. This was the first year the course traveled to a country where English is not the first language, which was an amazing experience for our students. Besides the regular lectures and pre-trip assignments, our students had to study Italian and demonstrate basic proficiency before traveling.

We visited Rome, Pompeii, Vatican City, Florence, Modena, and Venice in Italy, and culminated our trip with six days in London. Highlights of the trip include touring the Colosseum; visiting Pompeii; having a private tour of the Galileo Museum in Florence; attending a private lecture about the structural stability of the Duomo in Florence; seeing Maserati cars being assembled at the factory in Modena; learning about the delicate ecology keeping Venice afloat; amongst many other engineering-themed tours and lectures. Johnathon Kiebler and Dr. Andreas were even able to visit the Vatican Library conservation office as part of his research project! In London, we focused on touring and visiting some of the most popular itinerary items from the past year's trip.

As we do every year, each student was assigned a particular location to write about for our travel guide as part of our course. They are currently working on finishing their edits as they work with our book editor, Catherine Hatch. We hope the book will be ready for print by the end of the year.



Where Are They Now?

Barton Courtney (ME, Texas Tech, 2017) is at Bass Cat and Yar-Craft boats, which builds custom high end fishing boats and ships them all over the US as well as to Japan and Australia. His professors would like to remind him that we'd like first dibs on any sample sales.

Kevin Devers (M&MET, A&M, 2016) credits his Engineering Graphics class and his CSWA for helping him land his current job at Ulterra Drilling Technologies in Fort Worth, where he works as a design engineer using SOLIDWORKS. He and his new wife are enjoying spoiling their maltipoo.

Chris Garland (ChemE, Texas Tech, 2016) is at Rheem Manufacturing in Fort Smith, Arkansas and is a brand new homeowner!

John Gibson (CE, Texas A&M, 2015) recently passed the PE exam in Civil Water Resources and is still at CDS Muery as a Project Engineer in San Antonio, working on various site development and drainage projects. He says his sons have thankfully inherited their manners from their mother.

Audrey Giesler (CE, Texas Tech, 2019) is employed at Half Associates in Conroe, and won the John Roark Young Leader Award from the Texas Chapter of APWA in June.

James Grisham (Ph.D. in AE, UT Arlington, 2017) is still at Blue Origin in Seattle, working on a variety of tasks such as aerodynamics, flight dynamics, and CFD. He and his wife welcomed a little one to their family in November 2018.

Jaxom Hartman (EE, Texas Tech, 2019) turned a six-month co-op into a 12-month co-op into a full-time job at a government contractor. He's currently building up the courage to pursue a master's degree.

Chapan Harwell (BAAS M&IM, Tarleton, 2018) proudly sports his two MCC AS degrees at his desk where he works at the Perry Company, a job he originally landed while still a student at MCC.

Will Klump (CE, Texas Tech, 2019) just passed his FE exams and is working as an EIT for Teague, Nall & Perkins in Fort Worth on the municipal and development team.

Jacob Lockhart (MET, Tarleton, 2017) is working in new product development at Klein tools.

Michael Monell (ME, Texas Tech, 2016) is a design engineer at Peterbilt Motors and has an application at the patent office (wow!). He loves managing his 10 acre cow/calf operation at home and continues to do custom silversmith work in the evenings.

Dave Moran (ME, Arizona State, 2019) is now a test engineer at Blue Origin at the West Texas Launch Site near Van Horn.

Bao Pham (IE, UT Arlington, 2017) continues his work by day as a golf-playing, hockey-watching, mild-mannered technical consultant, and by night dreams of stardom.

Austin Price (PetE, Texas Tech, 2016; MBA, Texas Tech, 2017) loves his technical sales role with Nalco Champion. His wife Sarah is also an

engineer and they love traveling internationally and fostering dogs.

Karen Rucker (EE, Texas Tech, 2019) is enjoying her new full-time job as an RF/Microwave Design Engineer at Ball Aerospace in Colorado and is looking to start her master's degree next year.

Michael Shepard (EE, UT Dallas, 2019) is recently married and hoping to land a position in IP or sales, ideally in the software or semiconductor areas.

Rodney Siders (EE, A&M, 2017) is at the Lower Colorado River Authority (LCRA) and is working toward his PE. He and his fiancé are getting married in November!

Saul Torres (ME, Texas Tech, 2018) is working in Waco at Capstone Mechanical, one of the members of our Engineering Advisory Board!

Yuri Unterreiner (CompE, UT San Antonio, 2019) is at DataWing Global and loves working with the USAA during natural disasters – she created all the orthomosaic outputs for USAA to use in their disaster maps during Hurricane Michael and the California wildfires last year. Crazyness!

Jared Wolfe (IE, Texas Tech, 2019) is at a government contractor as an Industrial Engineer and is about to start his MS in Computer Science.

Chase Avary is taking time off from school and recently bought a house in Waco!

Sheldon Cox is having wondrous adventures teaching English in China.

Elijah Espinoza (ME, Texas Tech) is an intern at Baker Hughes in Houston, working in the subsea drilling department designing riser joints and other drilling equipment. He says, "When I had my interview with them they were primarily interested in things I accomplished at MCC... There were so many opportunities at MCC that have helped me stand out from people that went straight to four-year schools."

Ragan Forrest (ME, St. Mary's University) continues to play baseball for St. Mary's, as he did for MCC, and is looking forward to graduating in May.

Victoria LaBarre (EE, UT Arlington) is the event coordinator of her school's chapter of IEEE and has returned to the Mars Desert Station in Utah competing with UTA's Mars Rover Team. She has a great co-op and loves to travel, garden, and cook.

Gary Moore (ME, Texas Tech) is faintly recalling his insistence he'd never need anything from his MCC Circuits class as he slogs through Dynamic and Systems Controls (!), but is loving his Pipeline PIG design project.

Kristen Petree (CE, UT Arlington) will serve as a team lead for Engineers Without Borders and as a co-captain for the steel bridge team. She mentors new transfer students and says she still references her Intro to Engineering textbook from time to time.

Vince Porcare (EE, Texas Tech) is having a blast designing and programming challenging ranging from autonomous robots to a nerf gun turret

defense system. He credits Dr. Andreas, Dr. Smith, Prof. Sidwell, and Prof. Blaskiewicz for greatly influencing his passion for engineering. We credit him for sticking to it and being generally awesome.

Eric Rovelo (Math, Baylor) is nearing graduation and loves traveling internationally with his new wife Aime and putting together Metal Earth models.

Garrett Rust (IE, Texas Tech) wants to give a shout out to the general awesomeness of Texas Tech and encourages other current students and alumni to join his band of traveling Raiders, pillaging the countryside for gold and other precious loot. We think maybe he needs to take a break from studying for a few days.

Pete Silva (ME, Texas Tech) enjoyed building a fully-functioning quarter-scale tractor in his design class and will be enhancing it to compete in a national ASABE competition this fall. He absolutely loves his Manufacturing Processes class and is the Social Chair for Pi Tau Sigma, the ME Honor Society.

Arwhil St. Thomas (ChemE and Math, Texas Tech) is having a great time in Lubbock with his two dogs Mia and Rex.

Brandon Trout (ME, Texas Tech) recently interned at a forensic engineering firm in Lubbock and has also been working for Webber Heavy Civil in Austin. He loves working in the heavy construction equipment manufacturing setting.

Brad Ward (CompE, Texas Tech) is having fun designing a computer vision system that acts as an AI player for an air hockey game and is currently working on a system that can identify guitar chords via audio input by using Fourier transforms. He has hopes to pursue a career in radar engineering and eventually get an MS in EE.

Mathias Barrientez (ME, Baylor)

Kevin Soto Cortez (ME, UT Arlington)

Bernie De Alva Garza (M&EE, U North Texas)

Zakery Fyke (CS, Texas Tech, 2018; MS in CS, Texas Tech, 2019)

Gabe Gonzalez (ME, Texas Tech)

Julio Herrera (ME, U of Houston)

Johnathon Kiebler (ChemE, Texas Tech)

Curicavett Martinez (ME, Tarleton)

Blake Murphy (EE, Arizona State)

Gareth Ruggles (ME, Texas Tech)

Christopher Sorensen (ME, Texas Tech)

AE = Aerospace Engr

CE = Civil Engr

ChemE = Chemical Engr

CompE = Computer Engr

CS = Computer Science

EE = Electrical Engr

IE = Industrial Engr

M&EE = Mechanical and Energy Engr

M&IM = Manufacturing and Industrial Mgmt

M&MET = Manufacturing & Mechanical Engr Tech

ME = Mechanical Engr

MET = Manufacturing Engr Tech

PetE = Petroleum Engr

Alumni Spotlight

Zakery Fyke is a Data Engineer at Capital One. He recently earned a Masters in Science in Computer Science from Texas Tech University. His research involved the applications of Data Science and Machine Learning towards exploiting cybersecurity vulnerabilities present in mobile devices like smartphones. Zakery has worked on a wide range of software applications, from a SaaS web app for local governments, to a mobile app to link customers to IT professionals to assist them, to an automated framework which creates predictions on chemical contamination in underground water tables. Zakery spends his free time writing fantasy novels and spending time with his partner and their three pets. Zakery's advice to current MCC students: "The best projects to take on are ones that you have no idea how to do. Force yourself to get out of your comfort zone and learn something new as often as possible."



Student Spotlight: Bernardo De Alva Garza

Bernardo de Alva Garza attended MCC right after high school graduation as an Honors College and engineering student. He served in Student Council, Phi Theta Chi, and Physics and Engineering Club. He traveled internationally twice with MCC engineering, the second time as a research student studying the influence of arches upon dome construction. "The engineering classes at MCC were no joke and tremendously helped me prepare for the classes I am now taking at the University of North Texas. I am a strong advocate for attending MCC fresh out of high school because it is seriously an incredible stepping stone. I've filmed commercials with MCC because I truly believe in the potential any student has while attending. A surprising amount of activities and opportunities are available, you just have to search!"



I N M E M O R Y

We mourn the recent loss of Samuel Thomas, whose love for adventure and utter brilliance touched the lives of those around him. We were able to award five \$500 scholarships for students completing travel-study courses at MCC in Spring 2019 in his memory.

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The following person has been designated to handle inquiries regarding the nondiscrimination policies:

Drew Canham, Vice President of Student Success, 1400 College Drive, 254-299-8645, titleix@mclennan.edu.

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