

Engineering @McLennan

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Fall 2022

What's Happening

After a rocky start with the delta surge, MCC engineering was happy to be (mostly) back in the classroom for the 2021-22 school year. In addition to traditional face-to-face, online, and blended courses, we started offering “Hyflex” courses. In the Hyflex model, students can decide on a day-by-day basis whether to attend class in person on campus, attend via Zoom, or watch lecture videos online. With many of the sophomore-level engineering classes offered in this format, staying in school has become more accessible than ever.

In professor news, never content with being “good enough,” all three engineering professors enrolled in a graduate program in higher education through Texas A&M-Commerce. The adventures are many and the papers are hefty, but they are learning a ton and having great success implementing new strategies in the classroom. We also have a new mini engineer in our family as well. Professor Sidwell and her husband Ben were thrilled to welcome the newest and tiniest member of their family on March 3, Nina Lucia Sidwell!

Providing our students with academic support has always been of utmost importance to us. Thus, our department has fully embraced the use of Supplemental Instructors (SI) in our classes. An SI is a current or former MCC student who has taken the course in question and holds sessions outside class time to complement what students are learning. This, in addition to our bi-weekly Homework Nights, creates a collaborative environment that helps everyone get the support



they need and improve their experience (and grades!). Our SI leaders this past year were Jonathan Bonilla, Michael Deyo, and Maddie Anderson, who did an amazing job helping students.

We continue to strengthen our industry connections by once again inviting engineering industry leaders to present in our Industry Spotlight series. This year we had speakers from CP&Y, Capstone Mechanical, and TXDOT. In March, after a two-year hiatus, we held an Engineering Career Mixer on campus. Our students had the opportunity to meet representatives from nearby engineering employers to discuss future employment opportunities. With over 40 people in attendance, the event was a huge success!



Engineering Scholarships

We are grateful to have added yet another engineering scholarship this year, bringing the total to six! Each scholarship is worth about \$1000 per year. Scholarship applications are open Oct. 1 Jan. 15 and May 1 15 for the 2023 24 academic year. Scholarships include:

- Capstone Mechanical Engineering – Available to any Mechanical or Electrical Engineering student.
- Mr. and Mrs. Bronston B.T. Eden Engineering (2) – Available to any engineering student, based on high merit and need.
- Proven Scholar in Engineering – Specifically for returning students who are within two semesters of completing an AS in Engineering. Must have earned a B or better in Math 2414 Calculus II and PHYS 2425 University Physics.
- E.C. Curly Tabor Engineering – Preference is given to engineering students in the second year planning to transfer to Texas Tech University.
- Tommy Dale Tabor Engineering Scholarship – Preference is given to women studying engineering.

For more information on contributing to these or other scholarships, contact Kim Patterson MCC Foundation Executive Director, at kpatterson@mclennan.edu.

Student Spotlight – Michael Deyo

Michael Deyo was born and raised in Waco and attended high school at Vanguard College Preparatory School. He had a passion for the natural sciences and decided to be an engineer. After high school, he studied engineering at University of Texas at San Antonio (UTSA), but had to leave in Spring 2017. Four years after he left UTSA, Michael enrolled at MCC in Fall 2021. While at MCC, he participated in the NASA MINDS competition along with six of his fellow Highlanders and became a Supplemental Instructor (SI) for programming, all while slogging through a full load of classes! He graduated from MCC in Spring 2022, and returned to UTSA to complete his BS in Mechanical Engineering. Michael is once again competing in NASA MINDS, this time leading a team of students from UTSA!

“Having attended both a four-year university and a two-year community college, I’ve noticed just how different they are,” he says. “Because the class sizes at MCC are smaller compared to those at a typical four-year, learning and interacting with professors is much more natural.” An unexpected benefit? “Professors at MCC don’t have to do research to make money for the college, so they can focus on teaching and interacting with students.”

We wish you the best of luck, Michael!



IN MEMORY – JOE BONDESON

We are deeply saddened by the recent loss of Joe Bondeson, whose love of motorcycles and passion for fixing and tinkering made him a brilliant engineer and a valuable part of our alumni community. He will be dearly missed.



Artemis

Every year NASA hosts a design competition called Minority University Research and Education Project (MUREP) Innovative New Designs for Space (MINDS) – yes that’s an acronym-within-an-acronym! Seven MCC Engineering students (Michael Deyo, ME; Edward Rodriguez, ME; Ilyass Belaribia, EE; Judith Marcos, CE; Ollie Wess, EE; Solomon Stern, ME; and Jonathan Bonilla, ME) put together a proposal for a specialized anchoring system and won a \$1500 grant to develop a prototype! They spent the spring semester designing, testing, and redesigning and retesting and ultimately created the Pleiades Anchor. Their design won three different awards including first in technical paper, first in informational poster, and second in overall presentation and design. The team presented at the American Society for Engineering Education conference in Minneapolis and has already secured funding for the next round of competition for 2022-23.



Where Are They Now?

Elijah Espinoza (ME, Texas Tech, 2020) is still working in heavy structures and modifications, solving some interesting challenges using good old fashioned statics and solids! He recently bought a house and has had a lot of fun creating his own challenges and projects.

Keith Geisler (ME, Texas Tech 2016) is still at LyondellBasell as a fixed equipment engineer in Channelview. The two boys keep them busy.

Audrey Giesler (CE, Texas Tech, 2019) and **Will Klump** (CE, Texas Tech, 2019) are getting married in Fall 2022, and Audrey just finished up the drafts of the first-ever Regional Flood Plans for Texas.

Jaxom Hartman (EE, Texas Tech, 2019; MS Engr, Arizona State U) is a new home owner so is now a part-time tile-layer, fence-builder, porch-fixer, plumber, and drywaller and recently welcomed a baby girl.

Julio Herrera (ME, U of Houston, 2021) is in a global rotation program working as an Operations Analyst with a global company called Tenaris. He credits his experience studying abroad and doing seemingly infinite presentations at MCC at helping him land his dream job.

Reagan Hughes (ME, Baylor, 2020) misses Waco, finding himself putting out quite a few fires in South Texas.

Cody James (ME, UT Arlington, 2014) has taken the sales route and is now a strategic account manager with Fetch Robotics, building solutions with Autonomous Mobile Robots.

Jacob Lockhart (MET, Tarleton, 2017) is now a Senior Project Engineer with Kohler. Starting with casting, forging, machining, and heat treating, to extruding, aging, and machining of aluminum and glass, his first shower door hit the shelves in Sep 2022.

Emanuel Lopez (CE, Tarleton, 2020) is an EIT at the engineering firm BGE in Waco.

Gary Moore (ME, Texas Tech, 2019) recently started a new role at an aerospace company and is loving the work!

Dave Moran (ME, Arizona State, 2019) is still working for Blue Origin as a cryogenics engineer and spent a good portion of the year at the GIANT vacuum chamber conducting Payload Fairing Jettison Tests (this chamber was home to the bowling ball and feather test, as well as the opening scene in The Avengers movie in 2012).

Andres Olivas (ME, Texas Tech, 2019) is working at Klein Tools and recently co-authored a paper for testing methodology on Lunar Dust Adhesion. Because he's the coolest ever!

Bao Pham (IE, UT Arlington, 2017) is not being static by using his engineering degree to the fullest and is spending every moment as a stay at home parent to a couple of twins. The model parent, he's dealing with the shear stress and fatigue of constant and dynamic children, hoping that nothing forces him to return to work.

Karen Rucker (EE, Texas Tech, 2019; MS in Aerospace Engineering, CU Boulder) is a Spacecraft RF engineer in Boulder, CO. She has decided to make training for her first Ironman her entire personality.

Garrett Rust (IE, Texas Tech, 2021; MS in IE, Texas Tech) is working as a graduate student intern at Los Alamos National Laboratory, working in simulation and process modeling using ExtendSim and Simio. He is currently under investigation by Kitty Protective Services, as rumors abound he is not feeding Lefty tuna every day.

Ernesto Serrato (Accounting, Tarleton, 2022) is a data analyst for Cornerstone Caregiving.

Chris Sorensen (ME, Texas Tech, 2021) is rumored to be a design engineer doing mechanical work in middle America, but he insists that he is a graduate from the Derek Zoolander School for Ants.

Kevin Soto Cortez (UTA, EE, 2021) was working as a Product Development Engineer at Advantage Environmental Lighting, but was recently selected for a USMC Pilot Slot and just started USMC Officer Candidates School.

Adam Steiner (EE, UT Dallas, 2015) relocated to Seattle to work for a defense contractor on electric power systems for satellites/space applications (hooray for Matlab!). He and his sweetie love the Pacific Northwest, hiking, and kayaking.

Saul Torres (ME, Texas Tech, 2018) just passed the thermal fluids and heat transfer PE exam and is enjoying the views and hiking out in Arizona.

Brandon Trout (ME, Texas Tech, 2020) loves working as a subject matter expert at his new job and enjoys helping others learn.

Michael Vorderkunz (ME, Texas A&M Kingsville, 2016) is keeping busy at the Corpus Christi Army Depot as a Facilities Engineer.

Marcus Wauson (ME, Texas Tech, 2019; MS in ME, Texas Tech, 2022) has been having way too much fun creating fluids to create flow and mixing at low Reynolds numbers.

Alason Duncan (Interdisc Studies, LU) encourages anyone and everyone to get into surveying and civil drafting!

Charles Stewart (ME, Baylor) just finished a coop as a Combustion Manufacturing Engineer at Solar Turbines in Dallas. His company, Prominence Plumbing, is doing well and he's excited to have both his kids at Midway.

Josh Wojciechowski (EE, UT Arlington) is working at Texas Instruments and has a new pacman frog.

Hope Wright (ME, Tarleton) is working at Trane as a Manufacturing Engineering Technician making Operational Method Sheets for production. She and her kitty Ball had a great trip to Port Aransas to see the ocean.

Nicholas Cooper is working as a technology engineer with Empire Caterpillar. He credits the speech and engineering graphics linked class he took at MCC for helping him get the confidence he needed to get started, as well as the CAD and 3D printing experience he learned from Professor Sidwell.

Maddie Anderson (ME, Tarleton)

Jonathan Bonilla (EE, Baylor)

Michael Deyo (UTSA, ME)

Gio Garcia (ME, Baylor)

Chris Mobley (ChemE, Univ of Houston)

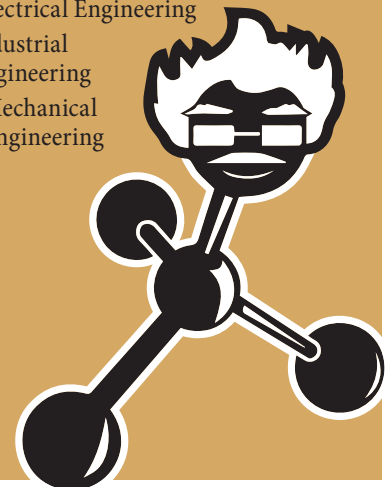
Blaine Myers (ME, Texas Tech)

CE – Civil Engineering

EE – Electrical Engineering

IE – Industrial
Engineering

ME – Mechanical
Engineering



Faculty Spotlight – Larry Benton

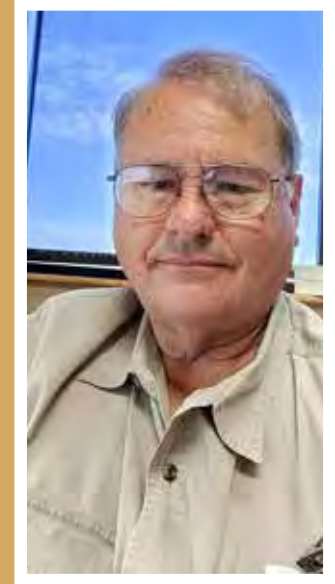
What do you get when you take a cowboy, add some science, and season with 23 years of working in the industry? Professor Benton!

Raised on a small ranch in western Central Texas, Professor Benton grew up working cattle, farming, hunting, and fishing. But did you know he also has training in classical piano and played jazz saxophone through junior year of college? He received a BS in Chemistry (minor in Math) from Howard Payne University. In 1978, he bought a Heathkit H-8 computer kit, then taught himself assembly language and BASIC.

Prof Benton ultimately earned an MS in Chemistry from Baylor University, building computer-controlled optics subsystems and designing related algorithms. He worked for Hercules Aerospace and Allergan before settling at Wilsonart International, where he developed and ran unique analysis using a plethora of instrumentation. During this time, he also received three patents for improvements to high pressure laminates: Embedded Antenna Connection Method and Aystem (2006), Holographically Enhanced Decorative Laminate (2003), and Electroluminescent High Pressure Laminate (2002).

Teaching at MCC since 2009, he has taught most of the

classes offered by the Chemistry Department. He went to the Mars Desert Research Station (MDRS) twice, once as a faculty member and again as a crew leader. He has taught and mentored many MCC students that have gone on to become medical doctors, pharmacists, physical therapists, and engineers. Most recently, he advised a team of students (Team Atlas) that competed in a national NASA engineering design competition (see elsewhere in the newsletter).



Says Prof. Benton, “Teaching at MCC has been one the most fulfilling endeavors I had the chance to experience in my life, and I look forward to many more years spending time with MCC students.”

Mars 101

The end of the spring 2022 semester saw MCC Engineering students returning to Mars, specifically to the Mars Desert Research Station (MDRS) in Hanksville, Utah. Isai Licea (ME) and Benny Blanco (CE) spent two weeks living “in simulation,” eating shelf-stable food, and completing EVAs in spacesuits, all while collecting data to build a GIS map of the area. Under the guidance of another MCC student and City of Waco employee, Eric Pena (CE), Benny and Isai learned GIS tools and practiced on smaller projects before heading out to the desert. As Benny and Isai (the self-titled Texas twins) tell it: “The mapping project has been very rewarding, allowing not only us but also the team to venture off to the ends of the roads and deep into the canyons, giving us the ability to experience this Mars-like habitat to the fullest. Our two-week mission simulation was marvelous, it really felt real, and the crew was exceptional.” We are so proud of them!



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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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