



Advancing Excellence

Update From the Development & Alumni Relations Office
No. 21 | Fall 2023



The University of Texas at Austin
Jackson School of Geosciences

DEAR JACKSON SCHOOL FRIENDS,



I hope this letter finds you healthy and in good spirits. This newsletter, *Advancing Excellence*, is meant to keep you in touch with the Jackson School of Geosciences and to share with you some of the important ways that your gifts impact the school and our students.

A lot has changed since I was a student in field geology (in the late 1970s), working with simple tools: a Brunton, Jacob's staff, some mylar taped over a topo base map, a notebook, some pencils and a really good eraser. We learned to cover a lot of ground in a day— though never as much as the long-legged field geologist who taught the class! So much new technology is available now for precise location, spatial and compositional characterization, recording and interpreting data. Students are still asked to put the geological story together, but they have a richer toolbox that enables additional perspective and precision. I hope you enjoy our main story about the importance of technology in the field, and the fund started by Albert Haertlein that supports it. The Haertlein Innovation and Technology Fund will help assure that Jackson School students use modern technology in all aspects of their education, and ensure they are ready to put those tools to work in their professional work. He understands that keeping up with technology may be financially challenging, but not keeping up is even more costly to

our students' futures. Haertlein's fund will support Jackson School and GeoFORCE students now and into the future, when today's technologies give way to even better ones. The only constant in field geology may be the tireless field geologists themselves.

Speaking of tireless, check out the back cover, where you will see the faces of our hardworking development team, which has moved us more than 80% of the way to our very ambitious capital campaign goal of \$110 million. Every year, this team seems to find a new gear as they drive to the goal, rising in virtually all categories.

The Jackson School is starting the fall semester with the largest freshman class in years and we are excited by the greater visibility of geosciences to new students! In partnership with you, we are committed to offering them the very best education possible! I hope you will come and visit when you are in town, meet with our students, attend our annual tailgate party before the game on September 30, or join us for our annual Scholar's Luncheon in November. You are so much a part of what makes the Jackson School so special!

Hook 'em!

Claudia Mora, Dean

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On the Cover

660 Field camp at Delicate Arch, Arches National Park, Moab, Utah, photo by Wade Aubin.



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FROM ROCK HAMMERS TO DRONES: INVESTING IN TECHNOLOGY IN THE FIELD

THANK YOU
TO THE
570
DONORS
WHO GAVE
THIS YEAR!

Assistant Professor Tim Goudge traveled with students from the GeoFORCE Texas outreach program to the Texas Coast this summer to teach them how to study coastal processes with the help of aerial drones. It was everything he hoped – the students were excited and loved the firsthand experience gathering and later processing data. And Goudge was able to introduce a new generation of budding geoscientists to modern field work.

But there were technical difficulties too. One of the iPads a student was using to help navigate a drone overheated, forcing them to land the vehicle by remote control with help from Goudge and graduate student Mariel Nelson. It was a bumpy ride but, luckily, nothing was broken.

The incident illustrates a growing reality in the field. Gone are the days when a rock hammer and a good pair of boots were enough for a student to learn the fundamentals of geosciences. Now, with big data and remote sensing in everyday use, students have to learn how to use a suite of technology in and out of the field.



PHOTO: ALBERT HAERTLEIN

And when you take equipment to the field, there's always the chance it will break.

"You go in the field and stuff happens. A bird attacks your drone or a drone tips over and sand gets in parts where it shouldn't," Goudge said. "Stuff breaks and fails. It's part of the research process."

Fixing or replacing equipment can be



PHOTOS ARE OF GEOFORCE STUDENTS ON THE TEXAS COAST LEARNING HOW TO READ THE CHANGE IN ELEVATION OF DUNES ON THE BEACH.

an expensive proposition. The drone the GeoFORCE student was operating was not pricey, costing just a few hundred dollars. But the drone that Goudge and Nelson were operating is a much larger and a higher-tech version equipped with Lidar sensing equipment. It costs about \$150,000, and it is one of the foundational pieces of equipment used by Goudge's UT Planetary Surface Processes Group. If it goes down, everyone is set back until it's fixed.

Making sure that the Jackson School community can access and maintain the equipment required for today's geosciences research is exactly why Jackson School alumnus Albert Haertlein (B.S., 1978) started the Jackson School Haertlein Technology and Innovation Fund. He read about Goudge's drone a few years back and wondered, "What happens if it breaks?"

As a longtime geologist and proud alumni, he wants Jackson School students to have the best education possible. Haertlein said that he knows that means buying the latest

"Jackson school students need to be exposed to the latest and greatest. That kind of education allows them to graduate and step right into a job and start working. It will make our students more attractive as potential hires."

-ALBERT HAERTLEIN



technology and keeping it in top shape, even in the face of harsh field conditions.

“Jackson School students need to be exposed to the latest and greatest,” he said. “That kind of education allows them to graduate and step right into a job and start working. It’ll make our students more attractive as potential hires.”

The Technology and Innovation Fund isn’t just for drones. It’s for any and all technology the school might need for education and research, which can cover the gamut. High-powered computing is a must for a modern

geoscientist, as is specialized equipment for gathering data in a number of settings. For instance, geophysics students regularly take to the Gulf of Mexico with high-resolution sensing equipment. In past years, students built a sled capable of carrying a ground-penetrating radar system to study rock-covered glaciers in Alaska.

The resources provided by the fund help take pressure off the Jackson School’s main endowment, Haertlein said. That’s important, he said, because research equipment shouldn’t have to compete for the same funds as student field trips, staff salaries and building maintenance.

Professor Charlie Kerans applauds Haertlein’s effort. He has led countless groups to the field over the years and was one of the first professors to adopt drones for collecting data. Kerans remembers one incident – with a laugh – where a student tried to gently break the news that the drone she was piloting was now sinking to the bottom of the ocean. All part of the learning process, Kerans said.

“For geoscientists, being able to visualize in three dimensions, being able to image and use remote sensing technologies to do our research, it’s fundamental, and it’s an



essential way to attract students into the area,” Kerans said.

Funding for innovative technology – both its acquisition and maintenance – has always been a major challenge, said Danny Stockli, chair of the Jackson School’s Department of Earth and Planetary Sciences. Thanks to Haertlein and other supporters who contributed to the fund, that could change in the coming years.

“The ability for the administration to fund or leverage funding will allow Jackson School faculty and research scientists to keep up with rapidly evolving developments in cutting-edge technology critical to today’s geosciences,” he said. “Having access to designated resources for the purchase and upkeep of essential equipment is a tremendous benefit to the Jackson School community.”





IZAAK AT REPSOL'S TARRAGONA TERMINAL IN NORTHERN SPAIN.

JACKSON SCHOOL ALUMNI: WORLD CHANGERS

Izaak Ruiz (B.S. '17; M.S. '19) leads the charge on Carbon Capture

Why did you choose to attend the Jackson School of Geosciences? Why study the geosciences?

I chose to study geosciences and attend the Jackson School because of GeoFORCE. My two favorite subjects were always science and math growing up, and when GeoFORCE introduced me to the world of geology, I immediately developed a deep fascination for it.

Where did you intern and how did that experience prepare you for success in your field?

I was fortunate to intern at three companies during my undergraduate and graduate tenure at the Jackson School: Welder E&P in San Antonio, Repsol in The Woodlands, Texas, and Hunt Oil in Dallas, Texas. These internships significantly prepared me for success in my current field, as I got to experience different cultures and work styles of small to medium to large size industry companies.

What was your first job after college?

Right after college, Repsol invited me to participate in their E&P training

program for 11 months in Madrid, Spain. Afterward, I was relocated to Repsol's office in The Woodlands as an exploration geoscientist for the U.S. Gulf of Mexico team.

What is your current position?

My current position at Repsol is carbon capture and storage (CCS) project coordinator in our CCS Development Americas team. As a Spanish-based global energy company, Repsol is committed to meeting climate targets and increasing its low-carbon portfolio. CCS is a key initiative that the company focuses on, requiring many of the skill sets geologists have developed.

Which lessons learned at the Jackson School have served you well in your profession?

Some of the lessons the Jackson School taught me are to never stop networking, defend your interpretation with confidence but be open to other ideas, remember that geology is the foundation for any project, and to make sure you enjoy what you are doing.

What's your favorite memory from your time at the Jackson School?

My favorite memory was graduation. I never thought I would receive a B.S. and M.S. in Geology from one of the best geosciences programs in the world. Seeing the emotion of my family is something that I will never forget. I strive to make my parents proud, and I know that I did just that when I graduated.

Since graduation, how have you stayed connected with the Jackson School?

I've stayed connected through two main avenues: GeoFORCE and carbon capture and storage. GeoFORCE recently invited me to speak at their closing ceremony on the UT Austin campus, and I anticipate serving as a professional mentor for their summer trips. Since the new offering of a CCS course at the Jackson School, I've been a judge for the students' end-of-semester presentations. I'm also Repsol's main point of contact for the company's affiliation with the Jackson School's Gulf Coast Carbon Center. I look forward to continue providing my time and giving back to the students of GeoFORCE and the Jackson School.

“Some of the lessons the Jackson School taught me are to never stop networking, defend your interpretation with confidence but be open to other ideas, remember that geology is the foundation for any project, and to make sure you enjoy what you are doing.”

-IZAAK RUIZ

Is there a specific professor at the Jackson School who inspired you?

Bill Fisher inspired me when I was in

school because of his love, passion, and dedication to the geosciences. I remember seeing him in action during our field trip to the Guadalupe Mountains and being in constant awe of his knowledge. And for those who have hiked there and know who Dr. Fisher is, this was in 2018. He undoubtedly influenced and motivated me to continue pursuing a career in the field of geology.

Did you have any experiences at the Jackson School that changed how you see the world?

There is one specific experience at the Jackson School that will continue to shape my career path. It happened during the fall of the second year of my undergraduate degree at the career fair. Born and raised in Eagle Pass, Texas, and being a first-generation college student, I never had a complete grasp on what it would take for someone that looked like me to have a successful career in the industry until this very moment. The recruiters at the Jackson School career fairs are mostly interested in late-career undergraduate students or those already in graduate programs. I knew this going in but challenged myself to check it out and prepare for the subsequent years. As I walked into the ballroom on the second floor of the Student Activity Center, I was taken aback; there were so many people – it looked like hundreds – dressed in professional attire and constantly shaking hands. I immediately froze. It took me a couple of minutes to snap out of it, and I walked out of the career fair. My heart was beating fast as a rush of anxiety overtook me. I walked to the bathroom and realized I was the only one there. I stood, looked at myself in the mirror, and took several deep breaths. My heart rate slowed, and I told myself, “You can do it.” I repeated this several times until I started feeling better. I walked out of the bathroom and back into the ballroom... about two hours later, I left the career fair with 15-plus business cards and a smile. This experience helped me get to where I am today. And through every career fair, conference, presentation, or networking event, the continuous growth in my confidence has assisted me in forming relationships that have helped me land internships, my job at Repsol, and now specific projects in my current position. The power of networking has greatly impacted how I see the world.



GEOSCIENCES DEPARTMENT RENAMED TO REFLECT CHANGING FIELD

The University of Texas at Austin's Department of Geological Sciences has a new name: The Department of Earth and Planetary Sciences.

The new name captures the breadth of research happening in the department and reflects recent changes to the undergraduate curriculum that will help UT geosciences students prepare to take on critical issues facing the planet and society, such as better understanding and mitigating climate change, preparing for natural hazards, and sustainably managing critical Earth resources and water supplies.

“Today's geoscientists do so many things. We're at the confluence of so many different fields,” said Danny Stockli, department chair and the Chevron Centennial Professor. “The new name is a more representative vision of what we do, what we teach and, to some extent, what we want to be.”

The department is part of the UT Jackson School of Geosciences and is one of the oldest academic units on campus. Founded in 1888 as the Department of Geology, it expanded rapidly during the Texas oil boom of the early 20th century. It underwent its first name change in 1967 in response to broadening research interests and opportunities, particularly in seismology and geophysics.

Stockli said that the field of geosciences has only continued to grow since then, and now frequently cuts across traditional disciplines to encompass the entire Earth system and other planetary bodies.

In the recent past, oil and gas exploration dominated the opportunities available to geosciences students and

“Whether it's natural hazards or energy resources, climate or sustainability, our students need to understand it all so they can help contribute to solutions.”
-CLAUDIA MORA

researchers. Although hydrocarbons remain an important field of study, there are now many different ways to be a geoscientist. For example, researchers and students in the department are creating climate models to forecast water supply levels, storms and heat waves; investigating an array of energy transition solutions; studying what triggers earthquakes, and how the ingredients for life might reach other worlds.

“It (the new department name) is much more much more representative of us,” Stockli said. “It's a vision of an entire system—the planet, the lithosphere, the hydrosphere, the biosphere, the atmosphere.”

Jackson School Dean Claudia Mora said that she hopes that the department name change and curriculum updates can help more people learn about the geosciences, the importance of the field and the many opportunities it holds.

“The geosciences encompass a much more diverse set of problems these days, and these problems are some of the most important ones facing society,” Mora said. “Whether it's natural hazards or energy resources, climate or sustainability, our students need to understand it all so they can help contribute to solutions.”

EVENTS



JACKSON SCHOOL TAILGATE

September 30, 2023
Holland Family Student Center, Jackson Geological Sciences Building



ALUMNI RECEPTION DURING GSA'S ANNUAL MEETING

October 16, 2023
Pittsburgh, PA



ALUMNI RECEPTION DURING AGU'S ANNUAL MEETING

December 13, 2023
San Francisco, CA



ALUMNI RECEPTION DURING NAPE SUMMIT

Date TBD
Houston, TX

Visit www.jsg.utexas.edu/alumni/events-calendar to learn about these events and to stay informed about other upcoming events and activities.



THE POWER OF INVOLVEMENT

YOMI OLUFOWOSHE AND HIS WIFE NATALIE ARE WELCOMED INTO THE HILL SOCIETY BY DEAN MORA AT THE 2022 EVENING OF THANKS

Abayomi (Yomi) Olufowoshe has always been a leader and a firm believer in giving back. Olufowoshe earned his bachelor's degree from the Jackson School in 2012 and has been serving the school in a variety of ways since. He learned about GeoFORCE while studying at the Jackson School. After graduation, he served as a mentor for GeoFORCE and participated in multiple GeoFORCE academies.

"I've always been inspired by the curiosity of the GeoFORCE students and their willingness to seek out advice from mentors who have been in their shoes," he said.

Olufowoshe's career started at Halliburton working with their geoscience team in roles ranging from product development, to international consulting and in his last role, he served as a strategic account manager. In his time at Halliburton, he helped secure Landmark Software licenses for the Jackson School. This provides students and researchers access to cutting edge technology that can help with course work and research. Now, he is working for Google, a career move that shows the broad applications of a geosciences degree.

Olufowoshe's connections and service to the Jackson School run deep. He has served on the Friends and Alumni Network Board, the GeoFORCE Advisory Council

"I've always been inspired by the curiosity of the GeoFORCE students and their willingness to seek out advice from mentors who have been in their shoes,"

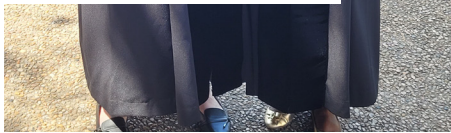
-ABAYOMI (YOMI) OLUFOWOSHE

and is currently serving on the Geology Foundation Advisory Council. He and his wife Natalie are also co-chairs on the What Starts Here Capital Campaign Committee. The couple have a strong passion for education and show that through mentoring students. They recently established an endowment to provide operational and programmatic support for GeoFORCE.

This young couple is a wonderful example of strong connections and generous support – they are helping us ensure that the future of the Jackson School remains bright!



Gretchen Gills (M.A. '89) and Nysha Chaderton (M.S. '05, Ph.D. '09) delivered the 2023 commencement addresses.



Students (l to r, front to back) Nicole Czwakiel, Carson Miller, Sophia Bautista, Nich Reiger, Cole Speed and Alejandro Oman Macias welcome friends and alumni to the annual tailgate.



Student Ros Visser connects with Robert Mace (Ph.D. '98) at the Scholars Luncheon.



David Keith presents his poster to Dean Claudia Mora at the annual Student Research Symposium.

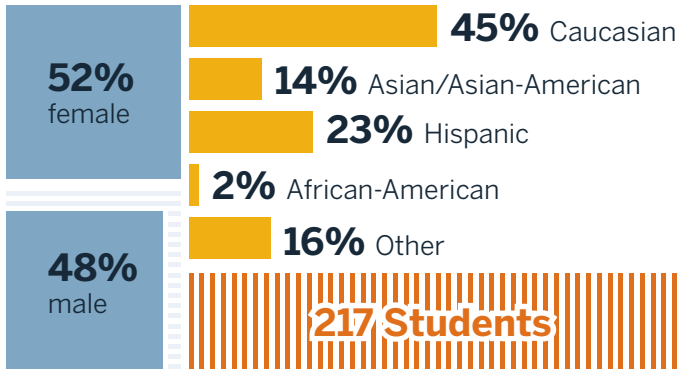


George (B.S. '58, M.A. '59) and Linette Harwell enjoy reconnecting with friends at the Evening of Thanks.



Parent of two Jackson School alumni, Elise Pedersen, receives a new Jackson School cap from Andrew West, Chief Development Officer, at the annual tailgate party.

UNDERGRADUATE STUDENTS



DEGREES OFFERED

Bachelor of Science (B.S.)

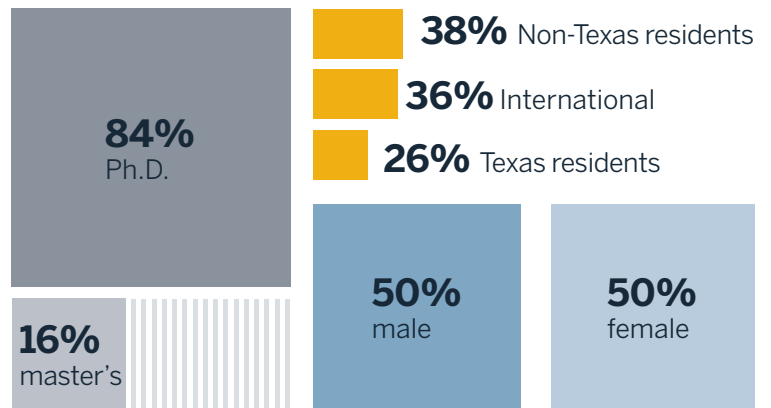
- Geological Sciences
 - ◆ Option I: General Geology
 - ◆ Option II: Geophysics
 - ◆ Option III: Hydrogeology
 - ◆ Option IV: Teaching
- Environmental Science
- Geosystems Engineering and Hydrogeology
 - Offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences

Bachelor of Arts (B.A.)

- Geological Sciences

GRADUATE STUDENTS

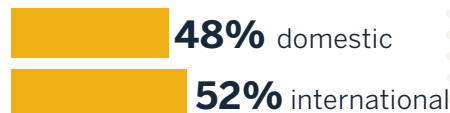
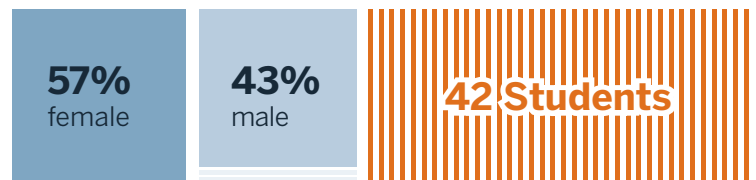
GEOSCIENCES



135 Students

ENERGY AND EARTH RESOURCES

Students in the Energy and Earth Resources Graduate Program pursue multidisciplinary studies in areas of geosciences, engineering, finance, economics and policy.



RANKINGS

#2 IN GEOLOGY

U.S. News & World Report

#3 IN PALEONTOLOGY

U.S. News & World Report

#5 IN GEOPHYSICS & SEISMOLOGY

U.S. News & World Report

#7 IN EARTH SCIENCES

U.S. News & World Report

Rankings are from 2023, the most recent year these disciplines were ranked.

54 FACULTY MEMBERS

90 RESEARCH SCIENTISTS

110 RESEARCH STAFF & POSTDOCTORAL RESEARCHERS



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UPDATED AUGUST 2023



MAXIMIZE YOUR IMPACT

The University of Texas at Austin and the Jackson School of Geosciences have several philanthropic opportunities that can significantly increase your impact on students and research on the Forty Acres

Texas Challenge

The University of Texas at Austin educates the future leaders of Texas, our nation and the world. But recruiting high-potential students gets more challenging each year as top universities offer more financial incentives. Strong scholarship packages ensure that UT can compete with other universities to recruit the best and brightest students. With your support, our students can become future leaders who will reach their full potential.

If you've been considering a gift to support students, now is the time. **You can double your impact through the Texas Challenge.** Make a gift to create a scholarship endowment and your gift will be **matched dollar-for-dollar** to support high-potential Texas students from middle- and low-income families.

Rapid Response

Rapid Response is the brainchild of Jamie Austin, Ph.D., a senior research scientist in the Jackson School's Institute for Geophysics.

"There is no more societally relevant research activity than learning from, and learning to live with, natural disasters," said Austin.

But many research opportunities are missed because of the difficulty of how difficult it is to find research funding on the fly. The Rapid Response Program, an initiative of the Jackson School of Geosciences at The University of Texas at Austin, funds this critical work. **In June 2021, Austin put up a \$1 million match for any gift to the Rapid Response Program. Help us prepare the next generation of geoscientists by making your gift to this critical initiative today!**

Legacy Challenge

You can make an impact today, and a lasting one in the future, by participating in the Jackson School of Geosciences Legacy Challenge. **Document a new planned gift of \$100,000 or more, and an immediate donation will be made to the department, program, project or area of your choosing within the school.** Contact us today to join the challenge!

GeoFORCE

Thanks to an anonymous donor, the Jackson School has established a challenge match of \$750,000 for GeoFORCE through 2024. Funds will support programmatic expenses for the GeoFORCE Texas summer academies and annual programs. The generous donation was gifted to GeoFORCE in an effort to diversify funding. **Eligible donations will be matched from new corporate sponsors, individual donors or by "in kind" donations that offset programmatic costs.**

For more information or to get involved today with these exciting initiatives, please contact the Jackson School development team (development@jsg.utexas.edu).

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New Job? New Adventure? Share Your News!

Your Jackson School family wants to hear from you. Visit apps.jsg.utexas.edu/form/alumni-update to update your contact information. And connect with other Longhorns by joining uthookedin.com.

GET CONNECTED. STAY HOOKED.