Geosciences

DEPARTMENT OF PHYSICS AND GEOSCIENCES

Newsletter

VOLUME 15, ISSUE 1



MAY 2021

Inside This Issue: Program News ··· 1

Photo Gallery ... 3

Contact us / Editors

Program News

Two Geology Majors Graduated in the Spring Semester



Myra Wilson and Marcos Lara graduated in the TAMUK Spring 2021 Commencement. We appreciate the level of dedication and effort given by these majors. Great job!

Originally from Arkansas, **Myra Wilson** grew up in the Rio Grande Valley. She graduated from Mercedes High School T-STEM Academy. Myra chose Geology as one of her majors at Texas A&M University –Kingsville (TAMUK) having been interested in it for a very long time. However, she also chose Criminology as a second major. In the future, she plans to use her Geology and Criminology knowledge to work in Forensic Geology with the FBI. We wish Myra all the best in her future endeavors!

Marcos Lara grew up in Falfurrias, Texas, south of Kingsville. A graduate of Falfurrias High School, Marcos chose Geology as a major because he felt it was a unique field of study. He thought of Geology as the major to do hands-on work in the field, and in the lab, and a great way to learn new things. Before joining Texas A&M University-Kingsville (TAMUK), Marcos never even thought about Geology! However, he admits his interest grew as he worked through his Bachelors career. He was mostly influenced by the various career paths that one can take in pursuing a degree in Geology and the enjoyment that comes with each of those paths. His favorite things about geology include hands-on activities and visiting many locations throughout Texas on field trips. Tackling different problems at these field trip locations and learning to solve them using the skills he learned in his courses was also part of his enjoyment and learning experience at TAMUK. Marcos was greatly involved with the Geosciences Club and participated in outreach activities. Taking various GIS courses, Marcos states, they expanded his geology knowledge as he learned to tie real-world locations with geology occurrences. Outside of the department and doing geology, Marcos enjoys the outdoors, especially hunting and fishing. He enjoys bow hunting in the winter. He says that being outdoors enjoying nature and hunting helped him get through college, as he was close to friends and family. For the future, Marcos is "hungry for the real work experience" and he is excited to have graduated and looks forward to the Future. We congratulate Marcos for making the Dean's List for Spring 2021 and we wish him a bright future!

Contact us:

Geosciences Program Texas A&M – Kingsville MSC 175, University Blvd Kingsville TX, 78363

Phone: 361-593-3110 Fax: 361-593-2183

URL:

geosciences.tamuk.edu

Editors:

Dr. Veronica Sanchez (veronica.sanchez@tamuk.edu)

Dr. Haibin Su (haibin.su@tamuk.edu) Dr. Brent Hedquist (brent.hedquist@tamuk.edu)



President and Dean's List – Spring 2021



Winston



Marcos



Tahiry

We congratulate **Winston J. Broussard** for making the President's List and **Marcos Lara** and **Tahiry Andriamiharisoa** for making the Dean's List for Spring 2021. Way to go!

TAMUK Students Attended Two Fieldtrips in the Spring, 2021



The Applied Geology class trip, co-organized by Dr. Robert Schneider and Randy Bissell from the Corpus Christi Geological Society, took place April 16, 2021. The class participated in observing active geological processes at the Nueces River Delta. Armed with field notebooks and muddy boots, the students discussed coastal changes since the Pleistocene into present day.

Geosciences Newsletter



Department of Physics and Geosciences Texas A&M University - Kingsville



The Geomorphology class led by Dr. Veronica Sanchez visited the Hill Country from April 8 through April 10, 2021. Among their field exercises, the students worked in diagnosing slope instability and making inferences in slope degradation using various field equipment, such Jacob staff, Brunton compass, and Schmidt hammer. They assessed topographic variations at various field sites, having previously studied various satellite imagery in Lab, and discussed paleo-topography to build geological models supported by their field observations. The highlight of the trip was a full (hot) afternoon at Enchanted Rock where students learned about the igneous history, weathering patterns, and topography. Students were excited to work with Paleozoic rocks as well as

directly observe the Great Unconformity, where a ~500 million-year gap is present between the Town Mountain Granite and the Hickory Sandstone formation. Students learned to make detailed outcrop observations, and plot themselves on a topographic map using triangulation methods, a great foundation for future courses.

Virtual Speaker Series – highlights from Spring 2021



The Department of Physics & Geosciences hosted an excellent lineup of speakers, professionals in their respective disciplines, for the ongoing Virtual Speaker Series.

On January 26, 2021, Dr. Cathy Downs, professor of English at Texas A&M University-Kingsville and geology major, presented a discussion on her current project focusing on condensing geologic history embedded in maps into something the audience can hold in their hands: a book. With an introduction of various concepts of geologic history, the utility and limitation of geologic map symbols, and plate tectonics, Dr. Downs presented a great discussion that non-geologists could understand. Especially delighting was the concept of Truth: its function in science and what we make of it with every geologic exercise we do.



On February 17, 2021, Dr. **Shuoshuo Han**, research associate at the University of Texas at Austin, Institute for Geophysics, presented work related to her ongoing research linking sediment properties to megathrust slip behavior. She presented results from the Cascadia region. Dr. Han is a marine geophysicist and she uses active source seismic data to study subduction zones and the oceanic lithosphere. We thank Dr. Han for her time and for presenting valuable results that may help us understand earthquakes in the Cascadia region. This virtual seminar was held in conjunction with the Corpus Christi Geological Society/Coastal Bend Geophysical Society.



On March 26, 2021, Dr. **Esayas Gebremichael**, assistant professor of geosciences at Texas Christian University, delighted the audience with an informative presentation on using synthetic aperture radar (SAR) to study the impacts of anthropogenic and natural changes along coastal areas. He presented results from case studies in the Nile Delta, Egypt, and Houston, Texas, USA. We wish Dr. Gebermichael the best in his research pursuits and thank him for accepting our invitation to present.



For our April event, coinciding with Earth Day on April 22, **John Metz**, meteorologist in charge at the National Weather Service office in Corpus Christi shared an excellent presentation on the types of data, technology and people involved in working with meteorological services. John Metz also highlighted career paths and strategies for undergraduates pursuing a career in atmospheric sciences. Prior to his presentation, a small group joined in ZOOM for an informal Meet & Greet session that allowed us to converse with our speaker and learn a little more about his line of work.

Faculty Publications

Li, H., Gao, R., Li, W., Carbonell, R., **Yelisetti, S.**, Huang, X., et al. (2021). The Mabja dome structure in southern Tibet revealed by deep seismic reflection data and its tectonic implications. Journal of Geophysical Research: Solid Earth, 126, e2020JB020265. https://doi.org/10.1029/2020JB020265

Geosciences Newsletter



Department of Physics and Geosciences Texas A&M University - Kingsville

Galleries









