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### Program News

#### Announcing the New Summer 2015 Field Camp (6 hours)

TEXAS A&M UNIVERSITY - KINGSVILLE  
**Geology Field Camp**  
BIG BEND NATIONAL PARK - CHRISTMAS MOUNTAINS - CENTRAL TEXAS  
Writing Intensive - Capstone Course

**Accepting Outside Students**  
**6 SEMESTER CREDITS**  
**\$3200**  
INCLUDES 12-SEMI TRIP, TRAVEL, FOOD

Upper Level Core classes required

- Mineralogy
- Petrology
- Structural Geology
- Sedimentology and Stratigraphy
- Field Techniques

Facilities

- 1. Lodging: On-campus dormitory
- Swimming pool, laundry facilities, restaurant, shower facilities, air conditioned work room area for camping adjacent to these facilities.

John A. Underdown Geosciences Prof. Support

- Location: Central Texas area
- Full camp facilities: electrical, telephone, showers, outdoor kitchen, multi-level refrigerator and freeze units.

Please contact for more information:

Department of Physics and Geosciences  
MSC 175, 700 University Blvd., Kingsville, TX 78363-8202  
Dr. Mark T. Ford mark.ford@tamuk.edu 361-593-2767  
Dr. Thomas McGehee thomas.mcgehee@tamuk.edu 361-593-3888

Join our Mailing List:  
We will forward additional information and an application as they become available.  
Anticipated application deadline: March 20th. Anticipated dates: May 18 - June 30.

The Geosciences Program announces that a new 6 credit-hour field camp has been developed for Summer 2015. We are opening the field camp to external applicants from other schools to join our students. We are capping the class at 18 students to ensure quality instruction. The new field camp will start on May 18 and end on June 30. We will start the activities at TAMUK with an overview of scheduled activities, field safety training, and our expectations for a successful camp. We will be stopping at many outcrops to examine and document the geology on our way to our new base camp in the Christmas Mountains at the Terlingua Ranch. We have ten days of field activities scheduled for students to observe and interpret the tectonic activities of the area in and around Big Bend National Park. We will travel back to the University to provide computing facilities and support for students writing their first draft of report #1.

our expectations for a successful camp in Central Texas. We have ten days of field activities scheduled for students to observe and interpret the hydrogeology of Blanco County. We will travel back to the University to provide computing facilities for students writing their first draft of report #2. If you want to learn more about this camp please visit our website at go to field experience on the right side-bar menu and select the field camp button ([http://www.tamuk.edu/artsci/physics\\_geosci/geosci/](http://www.tamuk.edu/artsci/physics_geosci/geosci/)).

The second half of the camp begins at TAMUK with an overview of scheduled activities, field safety training, and

#### Writing Intensive Winter Intersession Field Camp 2014



were the faculty and support team for this camp.

We completed our third successful winter intersession field camp in December. This year we had a few new speakers and projects added to the activities that included Lonnie Blake, a senior geologist with Everest Resources Company, Neal Kunkle, (alumnus) a geologist with UEC, and Bob Underdown, an engineer with UEC. We welcomed back Dennis Moore (Baker Hughes), Randy Bissell (Heddington Oil), and Mike Gisler (Gisler Brothers Logging). Vernon Kramer (Del Mar), Dan Jackson (TAMUK), Thomas McGehee (TAMUK), Amber Conner and Sylvia Gatewood

This field camp received great support from a large cross section of south Texas industry professionals. Dennis Moore gave a brief short course on geophysical log interpretation with a required student exercise. Randy Bissell gave a brief overview of sequence stratigraphy and how the interpretation of seismic data yields petroleum discoveries. Randy demonstrated how this is done then had the students work through an exercise. Vernon Kramer gave an overview of uranium company exploration for roll fronts and had the students complete an exercise to find a uranium roll front deposit. Bob Underdown and Neal Kunkle showed our majors a well field at the UEC Palangana Dome Project and discussed some of the problems with these discoveries. Mike Gisler gave an overview of the employee activities in the mud-logging business. We visited a site where they are fracking an unconventional well. We traveled out to an offshore drilling platform construction site. Lonnie Blake gave an introduction to geophysics and provided an overview of data-driven decision making in the life of a petroleum geologist.

Vernon Kramer provided overviews of the fracking project and offshore drilling. Dan Jackson took our majors over to the Corpus Christi log library to learn how to gather data for prospects. Students submitted a complete first draft of a report to our editing staff (Amber Conner) who recommended changes to complete a polished report on activities from the week.

#### 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](http://geosciences.tamuk.edu)

#### Editors:

Dr. Thomas McGehee  
([kftlm00@tamuk.edu](mailto:kftlm00@tamuk.edu))

Dr. Haibin Su

([haibin.su@tamuk.edu](mailto:haibin.su@tamuk.edu))



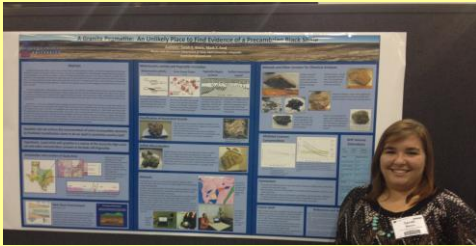


## Financial Aid Director Clarifies Funding Opportunities for Field Camps

Jessica Thomas, Executive Director of Financial Aid, Office of Enrollment Management, presented and discussed how students could finance their field camp costs through financial aid with their current FAFSA. She encouraged our majors to keep track of their federal support to ensure funding availability for field camp.

TAMUK does not provide State or Federal financial aid to non-TAMUK students; however, if you are eligible for such programs through your college or university, you may be able to apply your institution's financial aid toward our course through a Visiting Student Consortium Agreement. For more information about this option, contact Jessica Thomas at the TAMUK Financial Aid Office: (361) 593-2174 or [jessica.thomas@tamuk.edu](mailto:jessica.thomas@tamuk.edu).

## Sarah Beers Presents Research at GSA in Vancouver



In October, student Sarah Beers presented her research poster titled, "A Granite Pegmatite: An Unlikely Place to Find Evidence of a Precambrian Black Shale" at an international Geological Society of America conference in Vancouver, BC. Sarah received funding for the meeting from both the TAMUK Honor's College and the South Texas Minerals Section of the Society for Mining, Metallurgy and Exploration (SME) chapter. There were over 7,000 geoscientists from around the world at the meeting and Sarah was able to attend dozens of lectures and meet some of the authors that have written papers related to her work. She was able to meet with a number of graduate schools and visited numerous exhibitors displaying all things related to geology. She was also able to tour parts of Vancouver but wishes she had taken waterproof shoes! More information on the meeting can be found here: <http://community.geosociety.org/gsa2014/home/> and Sarah's full abstract can be found by searching the Technical Program.

## Check Out the New Additions to Our Website

Button: Field Experiences

- Field Trips Spring 2015
  - Geology of the Trinity Aquifer in Blanco County
  - Precambrian Geology of Central Texas
  - Mapping an unconformity on the Cypress Mill Ranch
- Field Camps
  - Winter Intersession: Professional Development 2014
  - Summer 2015
    - Advertisement
    - Application
    - Financial Aid for Field Camps
    - Activities planned for Big Bend
    - Activities planned for Central Texas
- Jackson Geology Page
  - Fieldtrip Information and writing competitions
    - Geology of the Trinity Aquifer in Blanco County
    - Precambrian Geology of Central Texas
    - Mapping an unconformity on the Cypress Mill Ranch
  - Field Camp Information
    - Field Camp I - 2014 - Tectonics and Geologic History of the Big Bend Area, Texas
    - Field Camp II - 2014 - Tectonics, Geologic History, and Hydrology of the Llano Uplift Area, Texas

## We Received Donations of 15 boxes of Books and Journals to our Library

Retired geologist Neil Fisher donated three boxes of GCAGS Proceedings to our program library. Dr. John M. Seeley (GIS consultant and alumnus) donated twelve boxes of books from his collections of Journal Articles and textbooks. Thank you for these needed materials for our library!

## Corpus Christi Geological Society Awards Scholarships to Four of Our Majors

Congratulations to John Dabney, Daniella Herrera, Sarah Beers, and Jonathan Tuck on receiving scholarships from the CCGS society. Daniella, Sarah, and Jonathan are presidential scholars. John Dabney is the one of the best writers out of our 60 majors. We appreciate the support from the CCGS for these deserving students.



### Our Geosciences Program Went on Three Fieldtrips

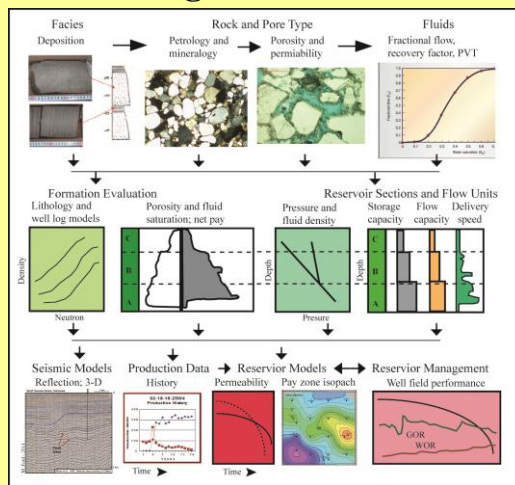


Fourteen TAMUK geology majors attended the September 25-27 fieldtrip “Folded Paleozoic Rocks near Hye, Texas: Evidence of Plate Tectonics?” Students from the GEOL 1303 (Physical Geology), GEOL 3431 (Sedimentology and Stratigraphy), and GEOL 3481 (Structural Geology) attended the fieldtrip. Mr. Tim Cockshutt (retired geologist) and Ron Fieseler (General Manager of the Blanco-Pedernales Groundwater Conservation District in Blanco County) provided their time and Mr. Cockshutt’s property for this project.

Sixteen TAMUK geology majors attended the October 9-11 “Paleontology of Texas: One way of age dating sedimentary rocks” fieldtrip. We visited the Jackson School of Paleontology at the University of Texas and examined outcrops in Williamson County. Students from the GEOL 1303 (Physical Geology), GEOL 3431 (Sedimentology and Stratigraphy), and GEOL 4420 (Paleontology) attended to learn how UT professional’s catalogued one of the largest fossil collections for research. Two students from Del Mar College joined us on this trip.

Twenty-eight TAMUK geology majors attended the October 23-25 field trip to Badu Hill: Economic Geology of a Rare Earth Element Pegmatite. Students from the GEOL 3409 (Mineralogy) and GEOL 3481 (Structural Geology) classes were paired in teams and tasked to study the mineralization of the pegmatite and host rock. Vernon Kramer and four Del Mar College students joined us on this fieldtrip. Mineralogy students were required to draft a finished map of a section of the open pit and write a report on the mineralization.

### Announcing the Bachelors of Sciences in Physics: Petrophysics Emphasis



The South Texas petroleum industry requested that our physics program at TAMUK develop a new concentration in petrophysics to meet the needs for professionals in this expanding industry. Petrophysics is the study of the physical and chemical properties of reservoirs (rocks and fluids). Petrophysicists analyze reservoirs and help engineers determine the best areas and procedures for drilling and excavation. Many petrophysicists are employed in the oil and gas industry, though some work in the water resource and mining industries as well. Petrophysicists study data about reservoirs and draw conclusions about the reservoirs' properties. They provide the information to engineers and geologists who are then able to make models and plans for drilling. Petrophysicists usually have a masters or doctoral degree in physics.

The Physics, Geosciences, and the Natural Gas Engineering Programs at TAMUK have developed multidisciplinary bachelors and masters degrees in petrophysics to supply the training for future professionals. According to Indeed.com, a career information website, the average annual salary for petrophysicists was \$113,000 as of July 2010. The Bureau of Labor Statistics estimates that employment for physicists, including petrophysicists, will increase by 16 percent between 2008 and 2018, which is a faster rate than the average for all occupations. Please contact the physics program at 361-593-2299 for more information.

### Geosciences Receives \$2,500 from South Texas Minerals Section of SME



Dr. Ford received \$2,500 from the South Texas Minerals Section of SME this fall. Dr. Ford requested monies for scholarships, research, and student travel to conferences. Sarah Beers has received money to travel to the GSA conference in Vancouver, Canada to present her research. We will be advertising the scholarships and research monies for the Spring 2015 semester.



## Geosciences Club and AAPG Student Chapter Activities



Letter from the Geosciences Club President, Veronica Nieto: “Hey Folks! Just want to give big thanks and shout out to those who helped in this semester’s Geosciences Club activities. This semester we planted plants to help beautify the City of Kingsville, began a new tradition of tailgating for home football games with our H-E-B award-winning splinter group, the ‘Rock Hogs’, as well as raised funds for both the Geosciences Club and the TAMUK AAPG Student Chapter at this year’s Fall Carnival...and lest we forget the club-hosted movie nights. The Geosciences Club celebrated this year’s Earth Science week by visiting students at Harrel Elementary School, as well as helping out our very own University by hosting a trash-pick up effort all around campus. Even our departmental Open House went smoothly. We also hosted speakers from throughout the industry to speak to our students about geoscientific-related topics... All-in-all, we had a VERY busy and productive fall semester in 2014! As for my time serving as this fine organization’s president; I am humbly gracious to the ever-faithful; those who never gave up on us and showed up to club meetings and events...and most-specifically our humble leader-in the shadows, Dr. Ford for helping to make my wild club-ideas work. To the Faculty and Staff of the Geosciences department- I thank you for a great last few years and hope to come back and visit soon...perhaps for Spring Fling or during Tailgate season!”

## Dr. Mark Ford Presents Paper and Poster Highlighting the Success of Our Program at the American Geophysical Union Conference



With nearly 24,000 attendees, the 47th annual AGU Fall Meeting (December 14-18) in San Francisco is the largest Earth and space science meeting in the world. Dr. Mark Ford presented his paper entitled “Writing Intensive Undergraduate Field Camp and Education: Expanding the Classroom and Preparing Students for the Workforce” in the Experience-based Learning: Enhancing Understanding by Expanding the Limits of the Classroom conference session. In his paper, Dr. Ford discusses our program emphasis in field training. He also presented a poster entitled “Increasing the Overall Quality and the Number of Women and Hispanic Geoscientists for the Workforce: Rebuilding an Undergraduate Program” in the Geoscience Workforce Issues: Demography, Gender, and Diversity conference poster session. In this poster Dr. Ford highlighted the program building success of our Geosciences Program. If you want to learn more about the

AGU and this conference please go to their website <http://fallmeeting.agu.org/2014/>.

## Earth Sciences Week, October 13-18, Was a Great Success



The Geosciences Program hosted our annual Earth Sciences Week activities in October. Activities were well attended, supported, and led by our student majors. Some of the highlights from the week included a Geosciences Open House, with GIS, Paleontology, Field Geology, Mineralogy and Petrology demonstrations; Fall Carnival, with a Geosciences Club booth and gem and mineral display; invited speakers – John Metz, NWS Meteorologist, speaking on “Severe Weather and Flood Safety,” and Richard Parker, Geologist, on “Eagle Ford Shale: New logging technologies to enhance fracking production rates;” a student-volunteer campus clean-up activity; a Kingsville volunteer tree planting activity and finally a tailgate at the homecoming football game with Geosciences alumni.

We received a full page of coverage in The South Texan newspaper which can be viewed here: <http://www.southtexannews.com/pdf/20141023.pdf> . We extend a big thank you to our student clubs that helped out with Earth Sciences Week!

## GSRL Gets Research Project

The Geospatial Research Lab (GSRL) has been busy with various research projects, workshops, and tutoring for our GIS courses in the department. Dr. Hedquist recently received a research grant of \$23,000 through the Guadalupe and Lilia Martinez Foundation and the Institute of Architectural Engineering Heritage (IAEH), to work with several of our undergraduate students in Spring and Summer 2015. Their goal is to create a GIS database and maps of historical structures at Rancho La Union, a historical ranch south of Laredo. Students will utilize GSRL resources to complete the project and the grant will allow for the purchase of additional lab resources. The lab has seen an increase in activity lately with a higher number of students within and outside the department taking GIS courses as part of the GIS Certificate and new GIS Minor program. We anticipate that with further funding and support that the GSRL will become a fully functioning interdisciplinary GIS Center on campus in the near future.



### Rock Garden Gains Momentum

We have a number of donors of large rocks that we are trying to move to the campus. This includes a large boulder of red granite from the Bear Mountain Quarry, a similar size boulder of town Mountain Granite from the Marble Falls Quarry, a large boulder of serpentinite (Coal Creek), and a very large boulder of pegmatite from the Petrick Quarry. These boulders are representative samples from the Precambrian exposures in Central Texas.

### Multiple Faculty Positions Advertised for Department of Physics and Geoscience

The Department of Physics and Geosciences at Texas A&M University–Kingsville seeks applicants for two tenure track faculty positions at the Assistant Professor level to begin August 1, 2015. We seek a **Structural Geologist (job posting # 0602011)** with a PhD in Geology with teaching responsibilities to include introductory courses, structural geology, and field methods. We also seek a **Geophysicist (job posting # 0602010)** with a master’s degree in Physics and a PhD in Geophysics with teaching responsibilities to include undergraduate physics and geophysics courses, and graduate geophysics courses. Degrees are required at the time of appointment. Applicants must develop a viable, sustainable, strong, externally-fundable research program involving undergraduate students. For additional information see [http://www.tamuk.edu/artsci/physics\\_geosci/](http://www.tamuk.edu/artsci/physics_geosci/) and to apply, please visit the following website: <https://javjobs.tamuk.edu>; An EO/AA/Veterans/Disability Employer.

### Winter Field Camp Galleries

