

The Geomorphology Laboratory at the University of Texas Rio Grande Valley (UTRGV), led by Dr. Tian Y. Dong, is looking for one master's student in [Ocean, Coastal, and Earth Science] or [Agricultural, Environmental, and Sustainability Sciences] to join us for Fall 2025 or Spring 2026.

What and where will you be working:

- A project funded by the Department of Energy to study water, sediment, and nutrient accumulation between abandoned channels of the Rio Grande Delta
- Locally at the Bahía Grande, Rio Grande Delta (RGD) in South Texas

What approaches and tools will you use:

- Numerical simulation of hydrodynamic, sediment transport, and surface dynamics of the tidal lakes in RGD via a High-performance desktop
- Field work to constrain initial topography and bathymetry, and collect validation of flow data via drones with LiDAR, RTK GPS, and acoustic instruments like single-beam sonar and ADCP
- Laser diffraction particle size analyzer to measure substrate sediment grain size

What do we offer:

- 12-month salary of \$15,000 for two subsequent academic years (the Rio Grande Valley enjoys a vigorous and growing economy with a high standard of living and one of the country's lowest living costs)
- Support with tuition and fees, research supplies (e.g., laptop), and attending conferences

What skills should you have:

- Background in Earth or Planetary Sciences, Engineering, or related disciplines
- Proficiency in Math, Physics, and Statistics
- Experience in numerical modeling (e.g., ANUGA Hydro)
- Proficiency in a coding language (e.g., Python)

What skills should you have to be a stronger candidate:

- Proficiency in GIS software (e.g., ArcGIS Pro) and a vector graphics editor (e.g., Adobe Illustrator)
- Drone survey and data processing experience
- Field experience in geomorphological and hydrological surveys

Important dates and information:

- The admission deadline is rolling, and a GRE score is not required
- Interested candidates should send the following to [tian.dong@utrgv.edu](mailto:tian.dong@utrgv.edu):
  - academic CV
  - a brief statement (maximum one page) of research interests, experience, and academic and personal goals