STUDENT BENEFITS:

- $5,560 summer stipend + fringe
- Airfare and travel costs to/from Houston/TAMUG covered (to $600)
- Free summer housing & meal plan
- Engage in high impact learning through hands-on training to enhance research, communication & skills
- Build a professional network through Faculty sponsorship
- Receive tools for success to navigate the academic pipeline
- Participate in scientific seminar luncheons & workshops
- Field trips to Galveston Bay & the Gulf of Mexico aboard R/V Trident to learn oceanographic data & sample collection techniques
- Enjoy outdoor recreational activities around the Galveston/Houston area
- Behind the scenes tours of Moody Gardens & NOAA Southeast Fisheries Lab

TO APPLY:

- Complete Application at: tamug.edu/research/OCEANUS
- Submit:
  - Completed application packet
  - Unofficial Academic Transcripts
  - Two Letters of Recommendation
- Applications must be fully completed by February 15th, 2019.
- Late or incomplete applications will not be reviewed.
- Applicants will be notified by March 15th, 2019

ADDITIONAL INQUIRIES:

Dr. Jenna Lamphere
Program Director, OCEANUS
Texas A&M University Galveston
Galveston, TX 77553
Email: jlamphere@tamug.edu
Office: 409-740-4758

OCEANUS
ocean and coastal research experiences for undergraduates

May 28th - August 7th, 2019
Award ID: OCE-1560242
OCEANUS is an interdisciplinary program that invites talented students from diverse backgrounds to participate in a 10-week immersive experience to conduct semi-independent research that will address the complexities and challenges related to our world’s oceans and coastal environments. This program is open to all biology, physics, chemistry, environmental science, geosciences, computer science and engineering majors graduating in December 2018 or later. Participating TAMUG departments include Marine Biology, Marine Sciences, Ocean Engineering, and Maritime Administration.

GOAL OF OCEANUS
To expose diverse students to an empowering learning and research experience that will foster interest and retention in baccalaureate completion, graduate school matriculation and the pursuit of ocean and coastal oriented STEM careers.

BROADER IMPACTS
Students participate in scientific discussions and communication, laboratory tours, research field trips, interactive workshops, social activities, and two end-of-summer undergraduate research symposia at TAMUG and the LAUNCH Summer 2018 Undergraduate Research Poster Session at Texas A&M University, in College Station, TX. Students will leave a lasting “footprint” of their summer experience with a 3-minute video abstract to highlight undergraduate student contributions in STEM research and establish a medium for outreach to local high school students, future REU recruits and potential graduate student recruits interested in ocean and coastal STEM fields.

ELIGIBILITY AND SELECTION
Selection will be based on a variety of factors including current academic standing, major grade point average (GPA; 2.6 or better), letters of recommendation and personal statement. GPA is not a strict minimum to be eligible to apply. Previous research experience not necessary. Students affiliated with the Louis Stokes Alliance for Minority Participation (LSAMP), enrolled in minority serving institutions or community colleges are strongly encouraged to apply.

EXAMPLE RESEARCH PROJECTS:

**Hurricane Impacts & Physiology**
Perform hepatic enzyme assays, spectrophotometry, mass spectrometry and data analyses of fish liver and muscle tissues to investigate the physiological and toxicological effects of increased influx of organic pollutants in Galveston Bay after catastrophic flooding caused by the landfall of Hurricane Harvey.

**Oil Spill Interactions**
Investigate the impacts of oil spills and the formation of exopolymeric substances formed by marine microbes, in order to understand how these interactions may aid in oil degradation.

**Tsunami Modeling**
Engage in both experimental & 3D numerical modeling (Full Navier-Stokes and Volume of Fluid method) to compensate for missing parameters required for accurate calculation of submarine slump scenarios for the Gulf of Mexico.

**Paleoclimatology & Sedimentology**
Use standard sedimentological techniques & equipment (e.g., coring tools and particle size analysis) to generate a long-term hurricane record for Galveston Island, which would provide important baseline information on prehistoric hurricane activity for the upper Texas coast, which is critical to guide decision makers addressing the sustainability of Galveston.