WE ARE
AGGIES
BY THE SEA
WHO WE ARE
AND WHAT WE DO

Texas A&M University at Galveston is driving the blue economy in the Gulf Coast Region and serving a critical role in contributing to Texas A&M University’s sea-grant mission.

DISCOVERY & INNOVATION FOR THE WORLD

We are innovating for the future with impactful research and discovery that explores the broad impacts of humans and the environment along our coast and in our oceans to safeguard our planet’s most valuable and underexplored resource – our oceans.

TRANSFORMATIONAL EDUCATION FOR ALL STUDENTS

We are educating for the future with adaptive scholarship and academic programs that prepare our students to pursue their field of passion.

IMPACT ON THE STATE, NATION AND THE WORLD

We are supporting the blue economy through integration of research and scholarship in our specialized fields with a steadfast commitment to serve the greater good near and far.
The “Blue Economy” concept, is an organizing principle that captures the interplay between economic, social, political and ecological sustainability of the ocean.

As a strong maritime nation with strengths in high tech expertise, the U.S. is well positioned to lead blue technologies in ocean activities.
THE “BLUE ECONOMY”


Set of opportunities in developing a cohesive national policy consolidating all marine energy sources around two thematic areas:

• “Power at Sea” markets include ocean observation and navigation, marine aquaculture, seawater mining, underwater vehicle charging, and marine algae.

• “Resilient Coastal Community” markets include desalination, isolated communities, and coastal resiliency and disaster recovery.
THE “BLUE ECONOMY”

TWO SECTORS

ESTABLISHED SECTORS

With proven long-term contributions to the economy, including areas where Texas A&M University currently operates and is among the national leaders in research and innovation, and in student preparation: port operations and logistics, marine transportation, fisheries, marine oil and gas. Areas that are part of the established sectors where A&M could grow its influence include the aquaculture and seafood processing industry, and coastal tourism. Coastal tourism as a major area of research is expanding on the Galveston Campus.

EMERGING SECTORS

Texas A&M again is part of the thought leadership in U.S. higher education in coastal and environmental protection, as well as marine research and education. Some promise of development has started to occur in the area of blue biotechnology (particularly with respect to algal derived biofuels), and defense and security with the development of a program in maritime cybersecurity that aligns with Texas A&M’s Cybersecurity Center. This particular avenue aligns with the efforts in automation, controls, and data analytics needed to support the development the established maritime sectors.
ACADEMIC PROGRAMS
ENROLLMENT

Student enrollment growth (2010-2020):
- 12% increase in undergraduate
- 205% increase in graduate

2020: ~2,100 with 430 engineers

UNIVERSITY GROWTH

- Large increase in research capture: ~$66M in multi-year awards over the last 8 years
- Vessel ops average 640 trips per year (~8,800 persons/year)
- Maritime Academy (license option): 318 (15% of total enrollment)
DEGREE PROGRAMS
ENDLESS OPPORTUNITIES

CURRENT DEGREE PROGRAMS

- Coastal Environmental Science & Society (B.A., B.S.)
- Marine & Coastal Management and Science (Ph.D.)
- Marine Biology (B.S.*, M.S., Ph.D.)
- Marine Engineering Technology (B.S.*)
- Marine Fisheries (B.S.)
- Marine Resources Management (MRM*)
- Marine Sciences (B.S.*)
- Marine Transportation (B.S.*)
- Maritime Business Administration (B.S.*)
- Maritime Business Administration& Logistics (MMAL*)
- Maritime Studies (B.A.)
- Ocean Engineering (B.S.)
- University Studies (B.A., B.S.)

* License Option Available (MART Required)

Marine Environmental Law & Policy
Oceans & One Health
Tourism & Coastal Community Development
DEGREE PROGRAMS
ENDLESS OPPORTUNITIES

CERTIFICATES

• Geographical Information Systems (GIS)
• Dynamic Positioning (OSVDPA)
• Secondary Sciences Teachers STEM

UPCOMING DEGREE PROGRAMS

• Electro Technical Officer (ETO) – Collaboration with Multidisciplinary Engineering Technology (MXET)
• BSc. Environmental Engineering
• BSc. Computer Sciences
INTERNATIONAL INITIATIVES
## Study Abroad

### CURRENTLY ACTIVE PROGRAMS

<table>
<thead>
<tr>
<th>Country</th>
<th>Department(s)</th>
<th>MOU</th>
<th>Institution</th>
<th>Period</th>
<th># Students/year</th>
<th># years running</th>
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<tbody>
<tr>
<td>Denmark</td>
<td>MARA</td>
<td>Yes</td>
<td>Copenhagen Business School</td>
<td>recurring - fall/spring semester exchange</td>
<td>15 to 20</td>
<td>6</td>
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<tr>
<td>France</td>
<td>MCES-MARB</td>
<td>Yes</td>
<td>Aix-Marseille Universite</td>
<td>throughout year</td>
<td>1</td>
<td>1</td>
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<tr>
<td>South Korea</td>
<td>MCES</td>
<td>Yes</td>
<td>Inha University</td>
<td>Summer</td>
<td>12 to 15</td>
<td>3</td>
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<tr>
<td>Belize</td>
<td>MCES</td>
<td>No</td>
<td></td>
<td>Summer or winter</td>
<td>12 to 15</td>
<td>2</td>
</tr>
<tr>
<td>China / Germany*</td>
<td>LIST</td>
<td>No</td>
<td></td>
<td>Fall</td>
<td>6 to 8</td>
<td>2</td>
</tr>
<tr>
<td>Greece</td>
<td>MARB</td>
<td>No</td>
<td></td>
<td>Summer</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Greece</td>
<td>MARA</td>
<td>No</td>
<td></td>
<td>Summer</td>
<td>15</td>
<td>4</td>
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<tr>
<td>International ports</td>
<td>MART-MARE</td>
<td>No</td>
<td></td>
<td>Summer</td>
<td>&gt;250</td>
<td>55</td>
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<tr>
<td>London</td>
<td>MARA</td>
<td>No</td>
<td></td>
<td>Intercession - Summers</td>
<td>10 to 12</td>
<td>4</td>
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<tr>
<td>Netherlands</td>
<td>MCES</td>
<td>No</td>
<td></td>
<td>Long Semesters</td>
<td>6 to 8</td>
<td>4</td>
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# International Research

<table>
<thead>
<tr>
<th>Research Program</th>
<th>PI(s)</th>
<th>Department(s)</th>
<th>Funding Agency</th>
<th>Period</th>
<th>Country (ies)</th>
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</thead>
<tbody>
<tr>
<td>Coastal Flood Risk Reduction (FRRP)</td>
<td>Brody, Highfield, Merrell</td>
<td>MCES</td>
<td>NSF</td>
<td>2015-2021</td>
<td>Netherlands</td>
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<tr>
<td>Gulf of Mexico</td>
<td>Amon, Anis</td>
<td>MCES</td>
<td>Mexican Conacyt - Pemex NSF</td>
<td>2015-2020</td>
<td>Mexico</td>
</tr>
<tr>
<td>Siberia and Arctic</td>
<td>Amon, Kaiser</td>
<td>MCES</td>
<td>NSF</td>
<td>2015-2019</td>
<td>Russia, Canada</td>
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<tr>
<td>Sargassum research</td>
<td>Kaiser, Hala</td>
<td>MCES, MARB</td>
<td>French government</td>
<td></td>
<td>France, Caribbean</td>
</tr>
<tr>
<td>Fukushima Newclear Power Plant</td>
<td>Santschi</td>
<td>MCES</td>
<td>DOE</td>
<td>2015-2019</td>
<td>Japan</td>
</tr>
<tr>
<td>Coastal Ecology &amp; Conservation Philippines</td>
<td>Anis</td>
<td>MCES</td>
<td>Kuwait Foundation for the Advancement of Sciences (KFAS)</td>
<td>2017-2019</td>
<td>Kuwait</td>
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<tr>
<td>Korean estuaries</td>
<td>Dellapenna</td>
<td>MCES</td>
<td>Korean government</td>
<td>2015-2020</td>
<td>Korea (South)</td>
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<tr>
<td>Carribean Sea</td>
<td>van Hengstum</td>
<td>MCES</td>
<td>NSF</td>
<td>2017-2020</td>
<td>Carribean</td>
</tr>
<tr>
<td>Genetics of Tuna</td>
<td>Laura Jurgens</td>
<td>MARB</td>
<td>The Conservation Food and Health Foundation</td>
<td>2020-2022</td>
<td>Philippines</td>
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<tr>
<td>Ecology and Behavior of Marine Mammals</td>
<td>Jaime Alvarado-Bremer</td>
<td>MARB</td>
<td>Universitat de Girona</td>
<td>2020</td>
<td>Spain</td>
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<tr>
<td>Climatology of the Caribbean</td>
<td>Randall Davis</td>
<td>MARB</td>
<td>NSF</td>
<td>2018</td>
<td>New Zealand</td>
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<tr>
<td>Ocean Drilling Program</td>
<td>Jessica Labonte</td>
<td>MARB</td>
<td>Columbia University</td>
<td>2018</td>
<td>Bahamas</td>
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<tr>
<td>Mammals in the Artic</td>
<td>Ana Sirovic</td>
<td>MARB</td>
<td>Australia Dep of Environment and Energy</td>
<td>2018</td>
<td>Australia, Artic</td>
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</tbody>
</table>
TEXAS A&M UNIVERSITY
GALVESTON CAMPUS

AGGIELAND

DOESN'T STOP AT THE WATER'S EDGE