



# OUR STUDENTS ARE "KNOWLEDGE ENTREPRENEURS"

A LETTER FROM THE CAO

#### **HOWDY!**

Graduate students at the Galveston Campus of Texas A&M University are not just part of the Aggie family, they are our future. Our graduate students are changing the world through their work of discovery, innovation, and entrepreneurship to become successful professionals in knowledge-based institutions, public office or private corporations.

The dedicated faculty, unique location, and outstanding resources on this premier ocean oriented campus enhances the research and educational environment. Our culture is strongly influenced by the small size of campus, allowing students a private school feel with the benefit of being part of a tier-one research institution.

Research at the Galveston Campus takes students and faculty to all corners of the globe, from the Arctic Circle to New Zealand, and Israel to the Amazon. Our faculty and students are "knowledge entrepreneurs" who are committed to making advances in marine and maritime research, focusing on problem solving and discovery as they create a better world for us all. As our community of scholars advances into the future, we hope you'll join us.

PATRICK LOUCHOUARN, PH.D.

Executive Associate Vice President for Academic Affairs and Chief Academic Officer Texas A&M University at Galveston

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# RESEARCH & GRADUATE STUDIES OFFICE

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www.tamug.edu/grad www.tamug.edu/research



DR. ANTONIETTA QUIGG Associate Vice President for Research & Graduate Studies



Director of Graduate Studies



HOLLY RICHARDS
Academic Advisor IV



Welcome to Texas A&M University at Galveston, which offers marine and maritime studies degrees in Engineering Technology, Biology, Liberal Arts, Social and Biophysical Sciences, Business and Transportation.

Texas A&M University at Galveston was designated a special purpose institution in 1971, in part to fulfill the Sea Grant mission of Texas A&M University College Station (main campus). The Galveston campus is committed to its mission of education, research, and public service. With its proximity to the Gulf of Mexico and Galveston Bay, Texas A&M University at Galveston offers students and faculty unique academic and research opportunities unavailable elsewhere.

The campus currently offers three Master's Programs: Marine Biology, Marine Resources Management and Maritime Administration and Logistics; and one Doctoral program: Marine Biology. Students are also hosted from a number of other graduate programs from colleges in Texas A&M University including Oceanography, Wildlife and Fisheries Science, Biology, Materials Science and others. With total campus enrollment around 2500 students; graduate students account for just under 10% of the Galveston campus population.

Texas A&M University at Galveston welcomes students of all races, sexes and national origins to become a part of our community.





# **FACULTY** AT THE FOREFONT OF THEIR FIELDS

At TAMUG, we offer our graduate students excellent faculty and staff committed to research, teaching and service, working together to foster scholarship through a variety of experiences both inside and outside the classroom. A diverse team is committed to student success through mentoring, training, professional development opportunities, open communication and clear expectations.

Faculty and students work on a diverse array of problems, from the microscopic to global level, addressing questions as diverse as the role of viruses in defining biogeochemical cycles of the oceans to the changing landscape of cybersecurity in transporting goods, port functions and operations, and the cost of services around the world. There are opportunities to address the most fundamental science questions (e.g., what are the consequences on an oil spill to the coastal environment) and apply them to answer questions at the societal and governmental levels (e.g., how does this affect the welfare of fishing communities, what kinds of regulations and legislation needs to be applied to protect our resources, the environment, and people).

Our programs are affordable, with the majority of our students completing their master's in 2 years and Ph.D.'s in 5 years. Upon graduation with the prestigious A&M degree, graduate students enter the workforce academia, industry, state and federal agencies - and also become part of the Aggie network (Association of Former Students), serving since 1879.

Antonietta Quigg

ANTONIETTA OUIGG, PH.D.

Associate Vice President for Research & Graduate Studies Texas A&M University at Galveston

#### A FEW OF OUR FACULTY

Dr. Joan P. Mileski is a tenured professor in Maritime Administration and Marine Science, serving as the Maritime Administration Department Head. Her research focuses on the impact of national and supranational (EU, NAFTA) regulation change on maritime industry firms' competitive strategy and on disaster preparedness of transportation infrastructure.

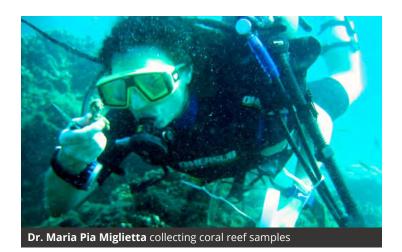
Dr. Samuel D. Brody is a Regents Professor in Marine Science and Director of the Center for Texas Beaches and Shores (CTBS). He conducts top-level research that seeks to increase coastal resiliency to storms and disasters. His research focuses on coastal resiliency, environmental planning, flood mitigation, and spatial analysis.

Dr. Maria Pia Miglietta is an assistant professor in Marine Biology. She studies the evolution, genetics, and ecology of Cnidaria, specifically Scyphozoa (jellyfish) and Hyrdozoa. Dr. Miglietta has a partnership with the Smithsonian Tropical Research Institute which involves frequent travel to Panama for research.

Dr. Pete van Hengstum is an assistant professor of Marine Science. He worked previously at the prestigious Woods Hole Oceanographic Institution. Dr. van Hengstum's research is focused on how coastal systems have interacted with climate, sealevel, and anthropogenic changes in an effort to predict the outcomes of future changes. Much of this work is centered on sinkholes, blueholes, and underwater caves, all of which hold vast amounts of untapped information for climate-coastal dynamics.



Dr. Samuel Brody and students reviewing coastal flood maps





**Dr. Joan Mileski** with students on study abroad trip in London



www.tamug.edu/grad 5

# RESEARCH DIVERSE AND MEANINGFUL

We have over 35 specialized laboratories and research groups dedicated to conducting and promoting marine, maritime and interdisciplinary research. A few of these include:

#### THE CENTER FOR TEXAS BEACHES AND SHORES (CTBS)

The CTBS is dedicated to the conservation and protection of the Texas shoreline, bays and waterways through innovative research in cooperation with government and private sector agencies.

# LABORATORY FOR OCEANOGRAPHIC AND ENVIRONMENTAL RESEARCH (LOER)

The mission of LOER is to provide state of the art access to analytical facilities and support coordinated interdisciplinary research efforts in ecological, environmental, and biogeochemical studies.

#### PHYTOPLANKTON DYNAMICS LABORATORY

The Phytoplankton Dynamics Laboratory's projects are diverse; ranging from examining trace elemental-phytoplankton interactions at the cellular level to mapping phytoplankton responses to changes in freshwater inflows in important Texas estuaries and the Gulf of Mexico on large spatial and temporal scales, to their transport around the globe in ballast water.

#### COASTAL AND WETLANDS ECOLOGY LABORATORY

Scientists examine the community-level interactions and processes that structure coastal ecosystems such as salt marshes, tidal mudflats, seagrass beds and tidal freshwater wetlands in this laboratory.



# **FUNDING**

Research conducted under the direction of faculty members receives its funding from federal, state and private and university sources which include:

National Science Foundation (NSF)

National Oceanic & Atmospheric Administration (NOAA)

Department of the Interior

National Aeronautic & Space Administration (NASA)

Minerals Management Service

Department of Energy

Department of Transportation

Texas Commission on Environmental Quality

Texas General Land Office

Texas Water Development Board

Texas Department of State Health Services

National Geographic Society

John P. McGovern Society

Mexican Council of Science and Technology (CONACYT)

Texas Institute of Oceanography

Our faculty, post-doctoral fellows and research staff and students are actively involved in research projects throughout the world

# **COMMUNITY**

#### CONNECTED ON CAMPUS AND BEYOND

Students at Texas A&M University at Galveston are Aggies too. Our graduates receive their degrees from Texas A&M University, and are eligible to receive the Aggie ring on Ring Day. Upon graduation, students from the Galveston campus become part of The Association of Former Students at Texas A&M University and the Aggie Network, linking them to all alumni of both Texas A&M University and Texas A&M University at Galveston.

While you are on campus, there are many ways to get involved in campus clubs and organizations, participate in athletics or connect with your fellow graduate students at events including:

#### **NEW GRADUATE STUDENT ORIENTATION**

Held the week before classes each semester, the New Graduate Student Orientation introduces new students to academic life as a graduate student at Texas A&M University at Galveston. A campus resource fair, Teaching Assistant Institute and lab safety training courses are offered during orientation for new students.

#### **GALVESTON GRADUATE STUDENT ASSOCIATION**

This group serves as the collective voice of all Galveston graduate students. They elect officers each year and host fundraising and social activities for the graduate students in residence at Galveston.

#### OFFICE OF GRADUATE AND PROFESSIONAL STUDIES WORKSHOPS

Once each semester, the Office of Graduate and Professional Studies and Thesis and Dissertation Services hosts workshops for current students, including Effective Writing Habits and Choosing a Committee.

#### INTERNATIONAL STUDENT ASSOCIATION

The International Student Organization allows students from all over the world to come together and bond while building new relationships with people from different cultures. It also serves to bring together undergrad and graduate students in sharing their cultures with the wider campus community.

#### **JOURNAL CLUB**

The Marine Research Journal Club presents an opportunity for graduate students and faculty members to discuss scientific literature in an informal setting. Along with forming bonds with peers, students develop confidence in their reading and interpretations of scientific papers.

# STUDENT LIFE

As would be expected, student life at TAMUG is often centered around the ocean. Many clubs and sports often involve water, but we have numerous student organizations, including professional organizations, that cover a wide variety of interests. The question is just finding the right organization for you.

- 30+ Student Organizations
- Multiple Club Sports
- Traditions Council
- Future Military Leaders
- Fine Arts Association

# STUDENT RESOURCES

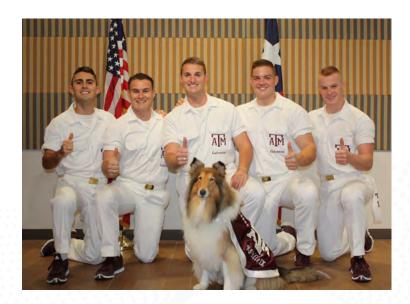
The Office of Student Counseling provides services to graduate students at TAMUG. The Office staff is dedicated to assisting students in their pursuit of personal and academic growth. Services are provided by licensed counselors and are free, voluntary, and confidential.

- Counseling and **Disability Services**
- Veterans Benefits
- Career Services
- Residence Life

## AGGIE TRADITIONS

For over a century, Aggies have been proudly creating and carrying on the traditions of Texas A&M University. Aggie traditions focus on honor, camaraderie, pride of self and school, and supporting the Aggie Spirit. With the founding of Texas A&M University at Galveston and the Texas A&M Maritime Academy, these traditions have found their home on the Gulf Coast.

- Aggie Ring
- Big Event
- Maroon Out
- Midnight Yell
- Muster
- Silver Taps







LEARN MORE ABOUT CAMPUS LIFE AT WWW.TAMUG.EDU/CAMPUSLIFE



# PROGRAM OVERVIEW

The interdisciplinary Graduate Program in Marine Biology (IDP) spans three campuses of the Texas A&M University System, with the host department of the program being the Department of Marine Biology on the Galveston Campus. Other participating departments include the Department of Marine Sciences (TAMUG), the Department of Oceanography, Wildlife & Fisheries Sciences, and Biology (TAMU) and the Department of Life Sciences at Texas A&M University-Corpus Christi (TAMU-CC).

# **PREREQUISITES**

In addition to a good grade point average and GRE test scores, an applicant for the MARB IDP program should have a solid biology, chemistry, and math/statistics course background. This background should include courses in general biology (2 courses), vertebrates, cell, invertebrates, genetics, general chemistry (2 courses), organic chemistry (2 courses), as well as calculus and statistics. Please look at the undergraduate Marine Biology curriculum listed at www.tamug.edu as an example.

# DEGREES OFFERED

The MARB IDP offers a master's professional degree, master's research degree, and Ph.D. degree in marine biology.

#### **MASTERS: PROFESSIONAL**

This option is geared towards students pursuing careers in K-12 education or educational outreach. Students will learn about current research in the field of Marine Biology but will not conduct a research thesis project.

#### **MASTERS: RESEARCH**

An option intended for students planning to continue with their graduate education at the doctoral level and subsequently enter universitylevel teaching and research programs, or those seeking governmental service in a resource management capacity.

#### **DOCTORATE**

The Ph.D. degree is intended for students who are interested in teaching at the university level, and/ or conducting independent research in academia, government or industry. Students may enter the Ph.D. program directly after the completion of an undergraduate B.S. degree if they have sufficient preparation, or may enter with a M.S. degree in biology or related discipline.

## CAREER PROSPECTS

The MARB IDP is designed for students who wish to pursue careers in education, government or private industry.

The principal strengths of the marine biology interdisciplinary program lie in the international recognition, scholarly productivity, and sponsored research funding of its diverse faculty, as well as the strategic location of the campus on the Gulf of Mexico. Typical careers for marine biology graduates include faculty positions in academia as well as research and development positions in both the public and private sectors as government and industrial professionals.



#### STUDENT HIGHLIGHT **MARINE BIOLOGY MASTERS PROGRAM**

After completing a bachelor's degree in Wildlife Biology, Sharon Patterson knew that her true passion lay in the ocean. She came to TAMUG to get the specialized skills she needs to go into marine rescue and rehabilitation.

"Having done my undergraduate degree on a large campus, I really appreciate the small community here. You feel very connected to both other students and the faculty. Getting to know the faculty so well is such a huge benefit - not only are they leading experts in the field, they have strong connections to the greater marine biology community!"



# PROGRAM OVERVIEW

The Marine Resources Management (MMRM) program provides students with a broad understanding of coastal and ocean policy and management. With over half of the world's population living in growing coastal areas, employers have identified the need for a degree that focuses on ocean and coastal resource law and policy, coastal zone management, physical and geochemical resources management strategies, and coastal resiliency.

# **PREREQUISITES**

In addition to a good grade point average and GRE test scores, an applicant for the MMRM program should also have a broad based science background preferably with some previous coursework in biology, chemistry, physics, geology, oceanography, economics, and statistics.

# DIVE INTO **RESEARCH**

Students who undertake a thesis will complete a significant research project and a substantial written summation of the results they find. They will work closely with a faculty advisor in crafting their project and finding meaningful results that will contribute to their field. Students who choose a professional path still have a myriad of opportunities to work with faculty across campus in developing original research.



# DEGREES OFFERED

The MMRM program offers students degrees with a professional or research focus. The program studies coastal and marine resource management and policy development from both an ecological and policy perspective.

#### **MASTERS: PROFESSIONAL**

The professional track option is geared for students seeking a terminal management degree. Students are still exposed to the latest research but substitute a capstone course and professional paper in the place of a thesis.

#### **MASTERS: RESEARCH**

The research track option is intended for students seeking to conduct individual research. Many of these students plan to continue with their graduate education at the doctoral level or seek more research-focused employment opportunities.

# CAREER PROSPECTS

The MMRM program is designed for students who wish to pursue careers in academia, private industry, government, and NGO's (non-governmental organizations).

Examples of the federal and state agencies employing graduates of the MMRM program include:

- U.S. Coast Guard
- U.S. Army Corps of Engineers
- U.S. Environmental **Protection Agency**
- Texas General Land Office
- Texas Commission on **Environmental Quality**
- State Sea Grant Programs

Graduates are also employed within the oil and natural gas industries, environmental consulting firms, the tourism industry, and in ports around the world.



#### STUDENT HIGHLIGHT **MARINE RESOURCES MANAGEMENT MASTERS PROGRAM**

Paul Mullen finds the Marine Resources Management degree to be academically rigorous, but also very engaging and rewarding.

"I love that it's small - you get to know pretty much everybody. You get to know the professors on a personal level. I like the weather - it's a nice change from Ireland - it's a beautiful day every day. On a Friday, you can just head to the beach. It's very relaxing and a nice way to get away from everything."

# MASTER OF NARIUM ADMINISTRATION SHIPPING SCISSOS

# PROGRAM OVERVIEW

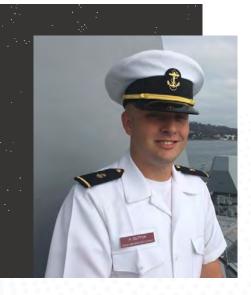
The Maritime Administration and Logistics program prepares students for professional leadership positions in maritime transport and related business sectors. Students have a choice of two tracks of study: Shipping and Port Management for the operational side of the maritime industry, and Maritime Policy and Law, for students interested in the regulatory side of the industry.

# **PREREQUISITES**

In addition to a good grade point average and GMAT test scores, an applicant for the MMAL program should have a background in accounting, management information systems, statistics, microeconomics, and management. The concepts in these courses are central to the courses that compose the Maritime Administration and Logistics graduate program.

# READY TO SET SAIL?

Through the Texas A&M Maritime Academy, TAMUG offers license training for Cadets leading to a Third Mate's License (Unlimited Tonnage, Unlimited Oceans). All graduate programs offered by TAMUG may also include this license training. Each of the degree plans will retain all of their original curriculum, and also include the U.S. Coast Guard requirements for licensing, which includes coursework, training and summer cruises.



## DEGREES OFFERED

The MMAL program offers students a master's research degree or master's professional degree. The degree may be pursued either in a traditional on-campus format or entirely online. Students may also pursue the USCG Third Mate license alongside their graduate degree. The License Option requires students to remain on campus. Please see www.tamug.edu/corps for more information on the license option program.

#### **MASTERS: PROFESSIONAL**

This option is geared for students pursuing careers in industry. Available entirely online, students will learn about the latest in the field of Maritime Administration and Logistics on both the operational side as well as the regulation and compliance side of this highly valued industry. Applicants who want to pursue research are strongly encouraged to pursue the thesis option.

#### **MASTERS: LICENSE OPTION**

This option is for students interested in obtaining both their graduate degree in Maritime Administration and Logistics and their USCG Third Mate license. Students will complete coursework for both their graduate degree and license simultaneously and graduate in approximately 3 years. This option is only available on campus. For more information on the specific requirements of the License Option, please see www.tamug.edu/corps.

## CAREER PROSPECTS

The MMAL program is designed for individual professionals interested in such fields as port management, supply chain management, and shipping company management as it relates to international marine and related transport, inland waterways, and international trade and finance.



#### STUDENT HIGHLIGHT **MARITIME ADMINISTRATION** & LOGISTICS **MASTERS PROGRAM**

After Megan Stockfleth earned her undergraduate degree in philosophy from Texas A&M, she began working as an admissions counselor here at TAMUG. She was so successful as a recruiter here that she convinced herself that the MMAL program was the right path for her!

She particularly enjoys the focus on logistics and economics in the program, and can hardly wait to travel the world.

"A&M Galveston was the first place I ever felt like I was home, and I still feel that sense of community. The people here are so welcoming. The professors genuinely care about you and are so knowledgeable. What you learn here is such a unique experience. I honestly just love it."

# **ALUMNI**A GLOBAL AGGIE COMMUNITY

Students at Texas A&M University at Galveston are Aggies, and upon graduation receive their degrees from Texas A&M University. This means that our students are eligible for the famous Aggie Ring, which is a unique identifier of Aggies around the world. The ring is designed to evoke pride in the core values that define what it means to be an Aggie and remind you of what you have accomplished. This helps people know you before they've met you, and will introduce you to family you never knew you had.

Upon graduation, students will have the opportunity to join both the Sea Aggie Former Student Network and the Association of Former Students of Texas A&M University. These organizations provide alumni with an unparalleled network that spans the globe. Whether keeping in touch with old classmates, connecting with people that have a shared experience, or attending events with an ever-expanding family, the Sea Aggie Former Student Network and the Association of Former Students of Texas A&M University exist to serve you in a multitude of ways.

The cohort I studied with are not only brilliant researchers, but incredibly **supportive friends!** 

Ashley Whitt, M.S. '16

#### **ALUMNI IN ACTION**

#### Dr. Alyson Azzara Marine Biology Ph.D. '12

Senior Maritime Advisor for the U.S. Committee on the Marine Transportation System, working on issues related to vessel safety, navigation, infrastructure and environmental stewardship.

#### Cliff Ghoram Maritime Administration and Logistics Masters '15

Analyst of Commercial Power Operations with Constellation Energy. Rang the opening bell at the New York Stock Exchange.

#### Dr. Josh Gunn Marine Resources and Management Masters '10

Senior Research Associate for the Center for Texas Beaches and Shores with a visiting faculty fellow from the University of Maryland. Studies the extent of urban flooding in the United States.

#### Ashley Whitt Marine Biology M.S. '16

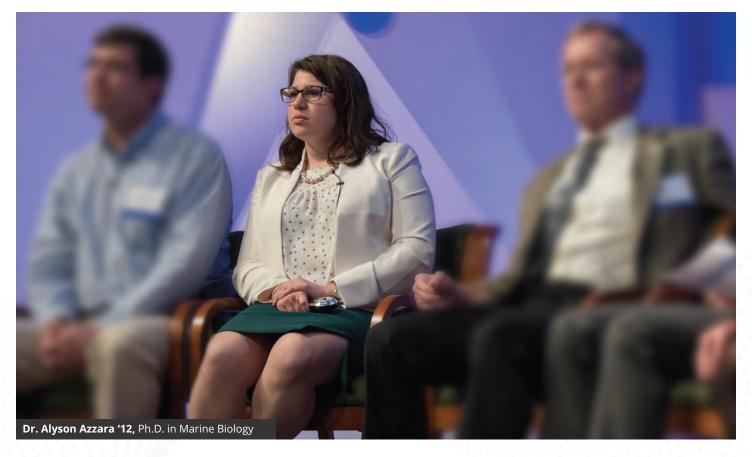
Studies sea level rise impacts on mangroves and marshes to facilitate resiliency and conservation of Victorian coastal wetlands in Australia.

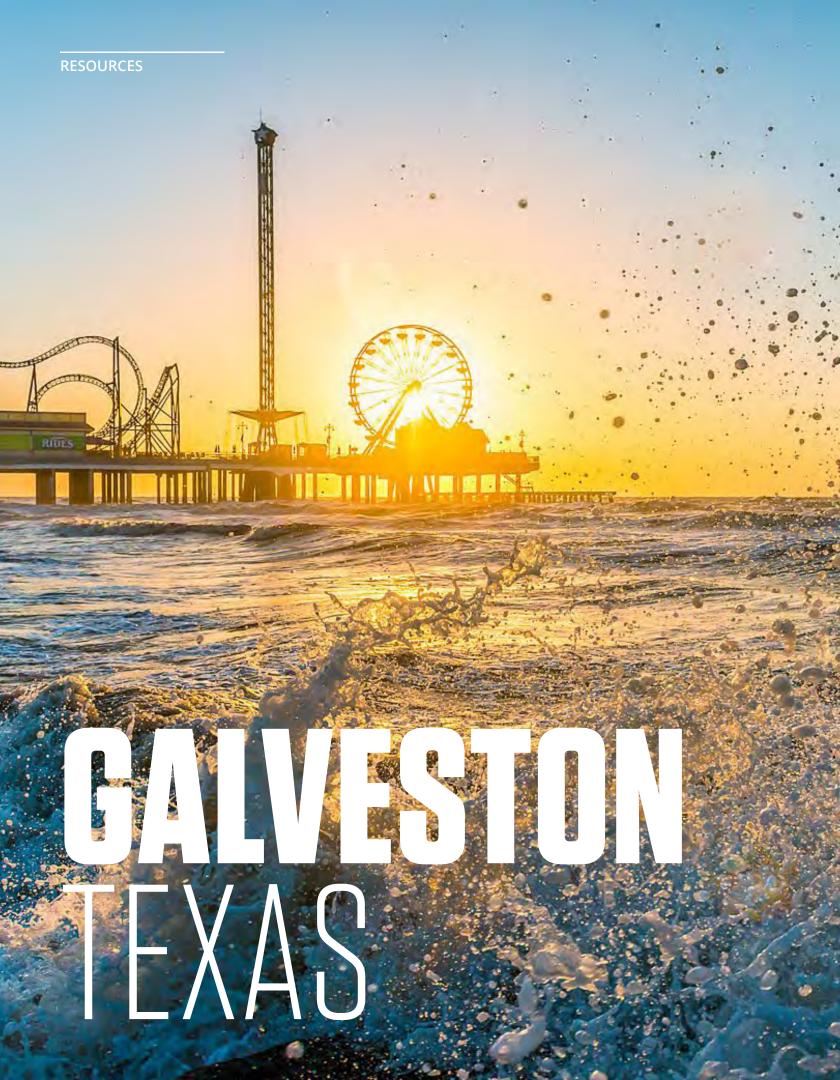
# LEARN MORE ABOUT OUR FORMER STUDENTS AT **WWW.TAMUG.EDU/FORMERSTUDENTS**













The city of Galveston is the gem of the Gulf Coast. With its eclectic island culture, there is something for everyone. With its miles of coastline, there are plenty of opportunities for relaxation, recreation, and worldclass fishing. The seawall is home to numerous options for dining, while the historic downtown is a lovely area geared towards pedestrian access. With countless shops, restaurants, and bars, the area is also home to the many parades and festivals held throughout the year. Whether it's at one of the local coffee shops, the patio of a favorite bar, or in the waves, people enjoy their time here.

While the city of Galveston offers much, it is small enough to be considered a genuine community. The atmosphere is relaxed, making the city conducive to conversation and making new friends. People may arrive from all around the world, but with the warm and generous welcome they receive Galveston quickly becomes home.

# WHERE THE TEXAS COAST BEGINS

Aside from the endless fun the island provides, Galveston has immediate access to both the Gulf of Mexico and the nutrient-rich Galveston Bay. This makes Texas A&M University at Galveston the ideal location to study any subject affiliated with the marine or maritime worlds. Classes and labs routinely make use of the water that is just a short walk from campus, giving students plenty of opportunities for the irreplaceable hands-on experiences that elevate an education.

# **HOW TO APPLY**

# U.S. APPLICANTS

- ☐ Complete the ApplyTexas Admissions Application at applytexas.org, including statement of purpose.
- ☐ Submit the non-refundable application fee.
- ☐ Submit Curriculum Vitae and Resume.
- ☐ Submit letters of recommendation.
- ☐ Submit official graduate test scores.
- ☐ Send official transcripts from every institution of higher education attended.

#### DATES TO **KNOW**

Keep the following dates in mind while completing your application:

#### July 1

The ApplyTexas application opens for the following Spring and Fall semesters

#### **December 1**

Priority deadline for funding consideration

#### **February 15**

Final deadline for funding consideration

#### May 1

Final ApplyTexas application deadline

See www.tamug.edu/grad for complete dates.



# INTERNATIONAL APPLICANTS

- ☐ Complete the ApplyTexas Admissions Application at applytexas.org, including statement of purpose
- ☐ Submit the non-refundable application fee.
- ☐ Submit Curriculum Vitae and Resume.
- ☐ Submit letters of recommendation.
- ☐ Submit official graduate test scores.
- ☐ Send official transcripts from every institution of higher education attended.

Be sure to submit official English translations of any transcripts in other languages. *In some foreign countries, the controller* of examinations or principal may certify academic records. Transcripts or mark sheets (consolidated mark sheets are not considered official) certified by the U.S. Embassy or other recognized agencies will be accepted. Official translations, not interpretations, are required from most countries.

☐ Submit TOEFL scores, if necessary, taken within the last two years. Proof of English proficiency is required for all students whose native language is not English. Satisfactory scores can be found online at www.tamug.edu/grad.



# TEXAS A&M MARITIME ACADEMY

The Texas A&M Maritime Academy is one of six maritime academies in the United States and the only one on the Gulf Coast. We are a prestigious, highly specialized maritime training and education program embedded within Texas A&M University at Galveston, a branch campus of Texas A&M University in College Station.

The mission of the Texas A&M Maritime Academy is to provide the maritime industries of the State of Texas and the United States with highly trained and professional U.S. Coast Guard licensed Merchant Officers (deck/engine) to serve on ocean-going and inland waterways vessels. To meet this mission, the Texas A&M Maritime Academy includes a Corps of Cadets. The purpose of the Corps of Cadets is to develop leaders of character dedicated to serving the greater good.

#### **ACADEMIC PROGRAMS**

Through the Texas A&M Maritime Academy, TAMUG offers license training for Cadets leading to a Third Mate's License (Unlimited Tonnage, Unlimited Oceans). All graduate programs offered by TAMUG may also include this license training. Each of the degree plans will retain all of their original curriculum, and also include the U.S. Coast Guard requirements for licensing, which includes coursework, training and summer cruises.

Learn more about the Texas A&M Maritime Academy at www.tamug.edu/corps.



# READY TO VISIT CAMPUS?

With water within walking distance and serving as our best laboratory, this promises to be more than the average tour. Come see what you can achieve here.

Visit www.tamug.edu/grad for more information.















# TEXAS A&M UNIVERSITY GALVESTON CAMPUS FEARLESS ON EVERY FRONT













