UNIVERSITY
OF MIAMI
ROSENSTIEL
SCHOOL of MARINE &
ATMOSPHERIC SCIENCE

Welcome to Orientation – Class of 2025

Meet the Leadership

Dr. Roni Avissar
Dean

One of the world's premier marine, atmospheric, earth science, and policy research institutions

- Founded in 1943 by Dr. F.G. Walton Smith
- 13th ranked Institution in the world in Geosciences (5th among US universities)
- RSMAS headcount
  - 80 faculty members
  - 400 undergraduate students
  - 400 graduate students
  - 220 support staff
- External Research Funding: $50 million/year

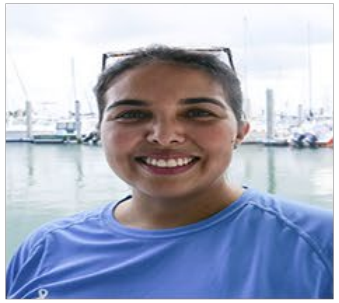
Undergraduate Degree Programs

- We offer six different degree options:
  - Marine Science (double major offered since 1977)
  - Meteorology
  - Marine Biology and Ecology
  - Oceanography
  - Geological Science
  - Marine Affairs

- Our students are very competitive for top national scholarships and awards (e.g., 3 NOAA Hollings Scholarships for 2020, 2 NSF Graduate Research Fellowships and 2 Honorable Mentions), as well as graduate schools.

Meet the Directors

Dr. Michael Brown
Oceanography



Dr. Liza Merly
Marine Biology & Ecology

Dr. Maria Estevanez
Marine Affairs

Dr. Anthony Hynes
Atmospheric Science

Dr. Igor Kamenkovich
Marine Science
(double majors)

Dr. James Klaus
Geological Science

Meet the Staff

Whitney Nolton

Assistant Dean, Programs

Ruth Goodin

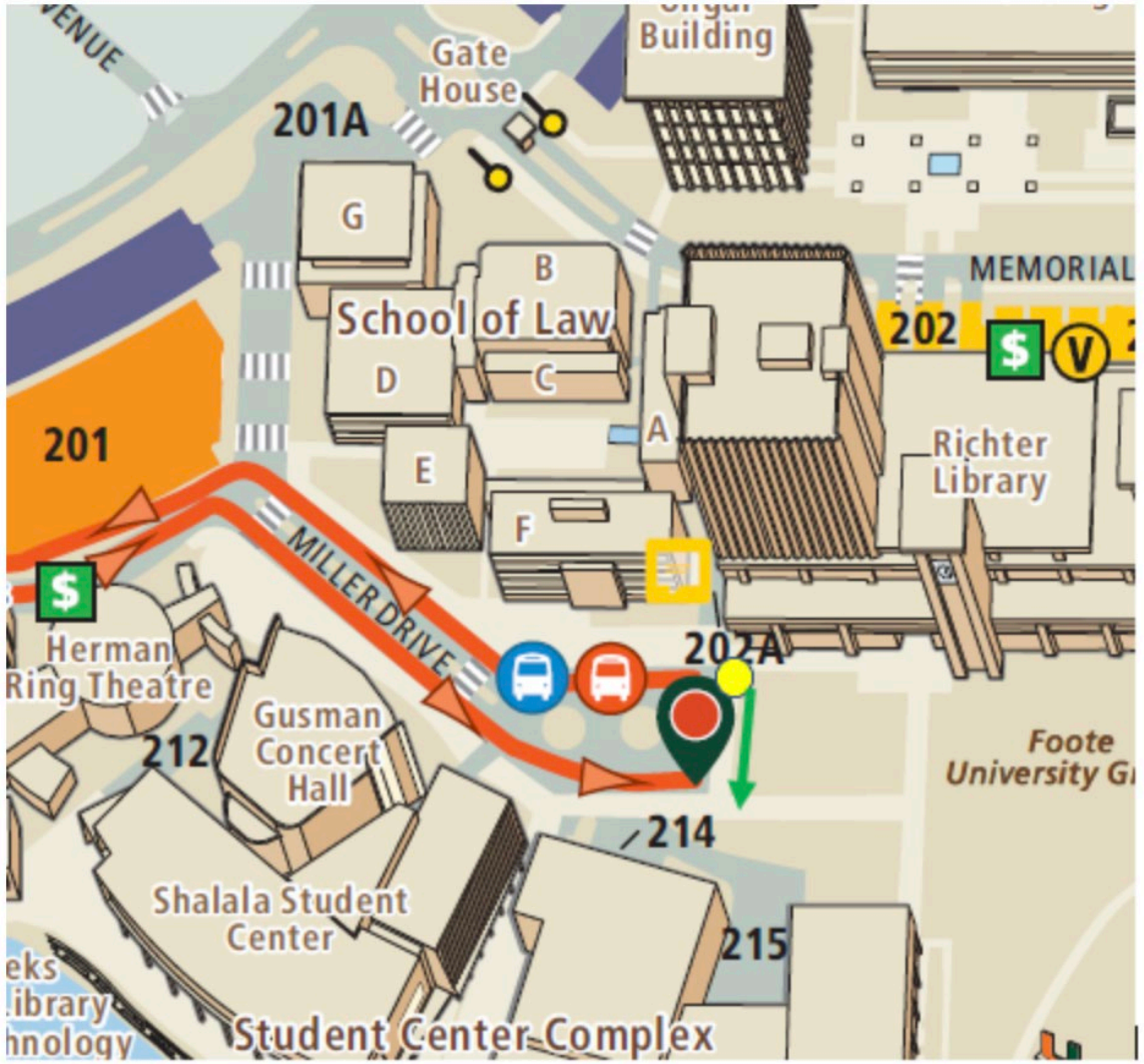
Sr. Program Coordinator

Earika Cenord

Office Manager

RSMAS Campus on Virginia Key

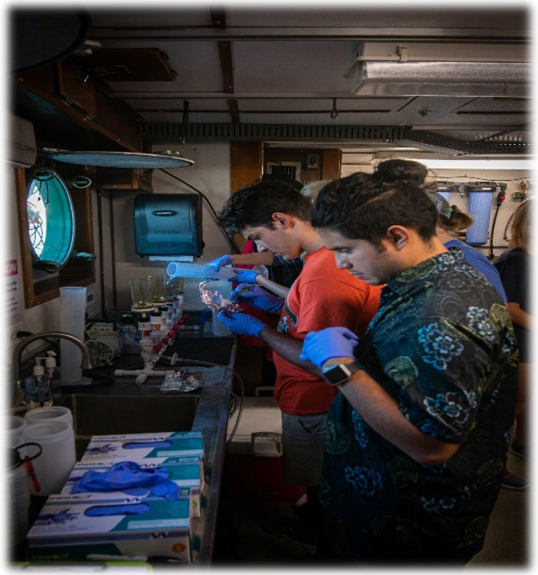
RSMAS SHUTTLE SCHEDULE

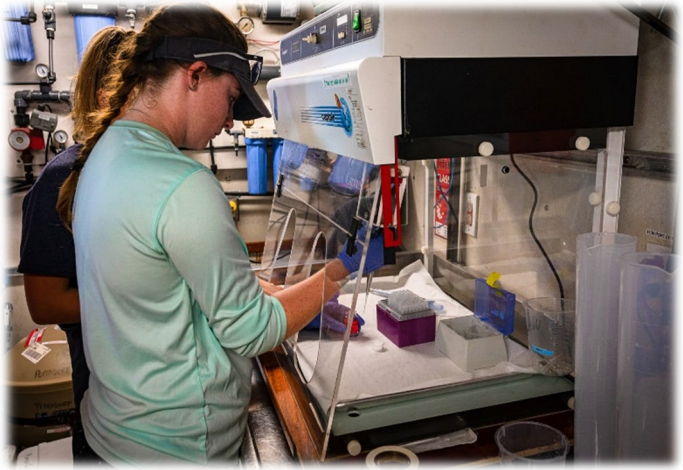


FOR ALL INQUIRIES CONTACT:
Parking & Transportation
Phone: 305.284.3096
www.miami.edu/parking

Marine Science (Double Majors)

Dept. of Ocean Sciences





Dr. Igor Kamenkovich
Marine Science (Double Major)
ikamenkovich@rsmas.miami.edu

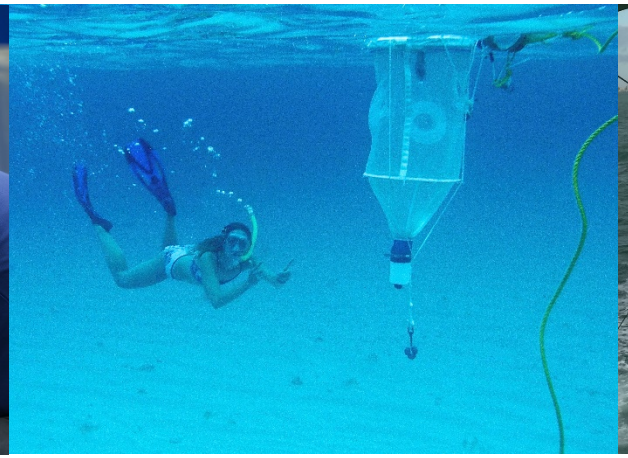
Double Majors (Marine Science Program)

- Founded in 1977, UM's double major in Marine Science remains one of the top programs in the country.
- The **interdisciplinary plan** focuses on the study of the world's oceans
- **Marine Science major** is complemented with depth in a **required second major**
- Popular second majors include: Biology, Chemistry, Computer Science, Geological Science, Mathematics, Meteorology, Microbiology & Immunology and Physics

Marine Science Program: Research oriented courses

- "**Seminar in Marine Science: (MSC 180):** introduction to contemporary research topics
- "**Readings in Marine Science**" **(MSC 371):** ocean circulation and climate; currents, biology and pollution; Fisheries; applied Math and ocean dynamics; rotating planet dynamics; exploration of Indian Ocean;
- "**Research in Marine Science**" **(MSC 411)**
- "**Undergraduate Thesis in Marine Science**" **(MSC 412)**

Marine Science Program: Opportunities



- Study abroad: UGalapagos (Fall and Spring)
- RSMAS summer/spring break programs
- Research (throughout RSMAS, main campus, the Medical School and NOAA)
- Reading courses with faculty, research in a lab, internships, senior thesis
- Explore existing interests, find new ones: Explore all that UM has to offer!

Marine Biology & Ecology

Dept. of Marine Biology & Ecology

Dr. Liza Merly
Marine Biology & Ecology
lmerly@rsmas.miami.edu

Marine Biology & Ecology: MBE

We learn by doing, thus:

- MBE has revised its program of study to reduce the number of required introductory courses.
- Fewer introductory courses, more upper-level research courses.
- Required research experience.
- Flexibility to add minors or another major in Computer Science, Biochemistry, Neurobiology, Environmental Science …

MBE

Research Intensive Learning

- Field work
- Experimental Ecology
- Physiological Studies
- Molecular Biology
- Genomics
- Computational Biology

RIL research combined with lectures to enhance your expertise in Marine Biology

Saltwater Semester

A Research Semester abroad at the Marine Campus

- Fall, meets M-F, 09:00 to 4:00.
- 16 credits for Four Research Intensive Courses
- Choose 4 out of 8 courses
- Each course is 3 weeks long, 4 courses = full semester

Geological Sciences

Dept. of Marine Geosciences

Fall Special Course offerings

- **GSC 371 – Readings in Geological Sciences**
- **GSC 411 – Research in Geological Sciences**
- **GSC 561 – Communicating Geoscience**

Geoscience Clubs

- **Sigma Gamma Epsilon (SGE) – Undergraduate Earth Science Club**
- **American Association of Petroleum Geologists – AAPG**

Departmental Events

- **Geotopics – Weekly Seminar Series in the Earth Sciences**

Mondays 3:30 via ZOOM

Dr. James Klaus
Geological Science
jklaus@rsmas.miami.edu

Field Courses in Geological Sciences

- Newfoundland and Labrador
- Colombia
- Dominican Republic
- West Texas and New Mexico
- Death Valley
- South Florida
- Bahamas

Oceanography

Dept. of Ocean Science

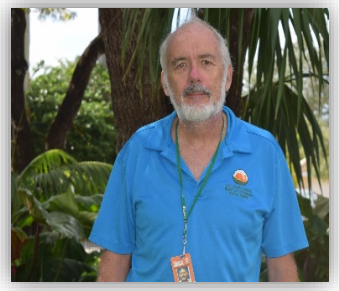
Dr. Mike Brown

mbrown@rsmas.miami.edu

- more flexible version of MSC double major program -- second major not required
- foundation: biology; chemistry; physics; calculus; statistics; programming (Python); earth history; atmospheric science; biological, physical and chemical oceanography
- additional depth in basic sciences/math required (e.g., extra math or chemistry), but this requirement is much more flexible than in double major programs
- advanced MSC course offerings include Ocean Acidification, Ocean Dynamics, Observational Oceanography, Marine Biota and Biogeochemical Cycles, Microbial Geochemistry of the Ocean
- active student involvement is strongly encouraged: R/V Walton Smith cruises; student involvement in research; Galapagos; study abroad; etc.

Research topics and activities for undergrads in Ocean Sciences

- larval fish orientation to environmental cues and navigation
- numerical modeling of transport of biotic and abiotic particles
- curating and cataloging the fish and ichthyoplankton collection
- biogeochemistry, including going to sea on research cruises
- role of phytoplankton and bacteria in chemistry in the ocean
- research on how microbes use nutrients
- harmful algal blooms
- trophic position of deep-sea mussels using stable isotopes
- contribution of land-derived carbon to shallow marine environments



Meteorology

Dept. of Atmospheric Sciences

Dr. Anthony Hynes
Atmospheric Science
ahynes@rsmas.miami.edu

ATM Strengths:

1. Many overlapping research strengths
   (e.g., hurricanes, global warming, ENSO, cloud physics, atmospheric chemistry)
2. Sufficient facilities and resources for research activities
   (e.g., computer power and data storage at CCS)
3. Large number of graduate students
4. Fully functioning undergraduate major (and well-attended service courses)
5. Highly active and well-recognized faculty ALL WITH RESEARCH FUNDING

UNDERGRADUATE RESEARCH OPPORTUNITIES EXIST WITH ALL THE ATM FACULTY

BS in Meteorology

- Program follows curriculum of American Meteorological Society
- Minor in Mathematics
- Double major options with Mathematics, Broadcast Communications, or Marine Science
- Rigorous preparation for graduate school, as well as careers in forecasting and broadcast journalism, as well as industry, government and education.

Recent undergraduate highlights:

2018/19. Two meteorology sophomores were accepted into NOAA Hollings Scholarships

2019/20. Three meteorology sophomores were accepted into NOAA Hollings Scholarships

2019 Dave Downey, Jackson Dill, Jarrod Maloney won second place in the AP Florida College Broadcast Excellence Awards

2020 Oaklin Keefe awarded the AMS/ Naval Weather Service Association Scholarship

2020 Nate Taminger selected as Stamps Scholar

Marine Affairs

Dept. of Marine Ecosystems & Society

Marine Affairs Academic Advisors

Dr. Katharine Mach – kmach@Rsmas.Miami.edu

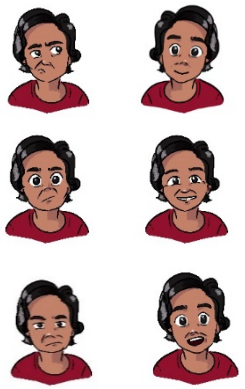
Dr. Daniel Suman- dsuman@Rsmas.Miami.edu

Dr. Keene Haywood – keene@Miami.edu

Dr. John Stieglitz – jstieglitz@Rsmas.Miami.edu

Prof. Maria Estevanez
Marine Affairs
mestevanez@Rsmas.Miami.edu

My advising faces



Bachelor of Arts in Marine Affairs degree

Minor

School of Arts and Sciences (Anthropology, Political Science, Geography, Economics, International Studies, Ecosystem Science and Policy)
Schools of Business Administration
School of Communication
School of Education

This program is designed for students who wish to prepare themselves for graduate studies, careers in marine policy, political ecology, marine resource economics, management and conservation of marine resources, environmental impact analysis, marine cultural resources, marine anthropology, spatial planning, ocean and coastal law and policy, and professional careers in business and law.

STEM Courses	People and Society Courses
Mathematics	Business, Finance
Biology	Geography
Chemistry	Policy
Geological Sciences	Law
ATM, OCS courses	International Studies

5 Year BA/MPS Program

Allows a Marine Affairs student to complete the BA degree in 4 years and a Masters in Professional Science for an additional year.

Student who has completed 60 credits and have the required GPA can apply for the program.

Conditional Acceptance to MPS – Students need to apply to MPS program in their senior year and must be accepted to the program.

Start taking graduate course in their junior year
Can take up to 12 credits of graduate courses that can be transferred towards their MPS degree

Student Engagements Fall 2021:

MSC180 – seminar course for marine affairs students

Greet and Meet Panel Discussions – Marine Affairs Alumni

Study Abroad Programs/Activities/Clubs within the University

Study Abroad Programs
Internship opportunities for students – Local Network and Contacts
Shark Research Center
UM Hatchery
NMFS
Miami Waterkeeper
Billfish Foundation

Where are our graduates now??

Senior Policy Advisor at NOAA Fisheries
City of Miami Beach Director of Environment and Sustainability
Director of Strategy at the Nature Conservancy

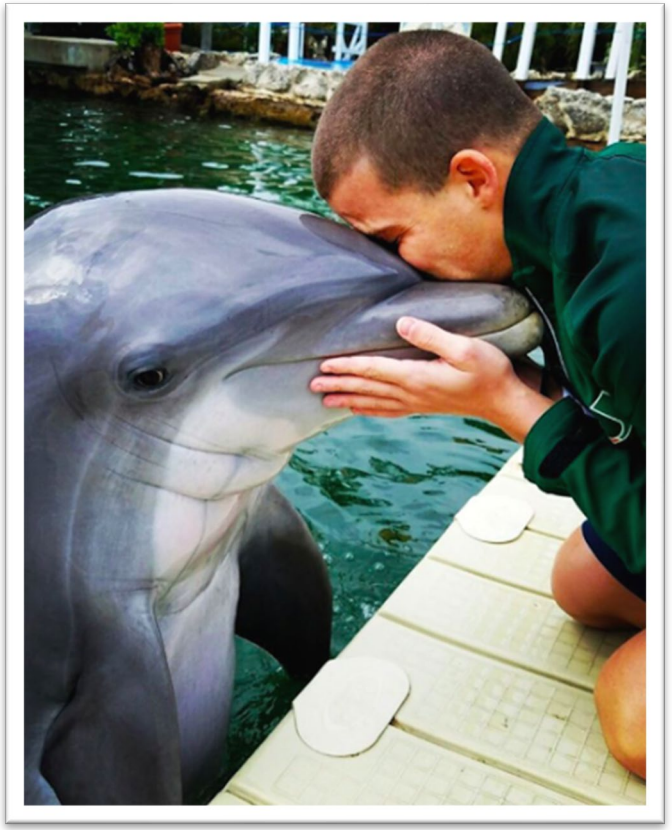
Outreach Regional Programs Manager at Blue Ventures
Resilience Coordinator, Communications and Outreach, Miami Dade County
Director of Conservation Program – The Billfish Foundation

RSMAS Undergraduate Email

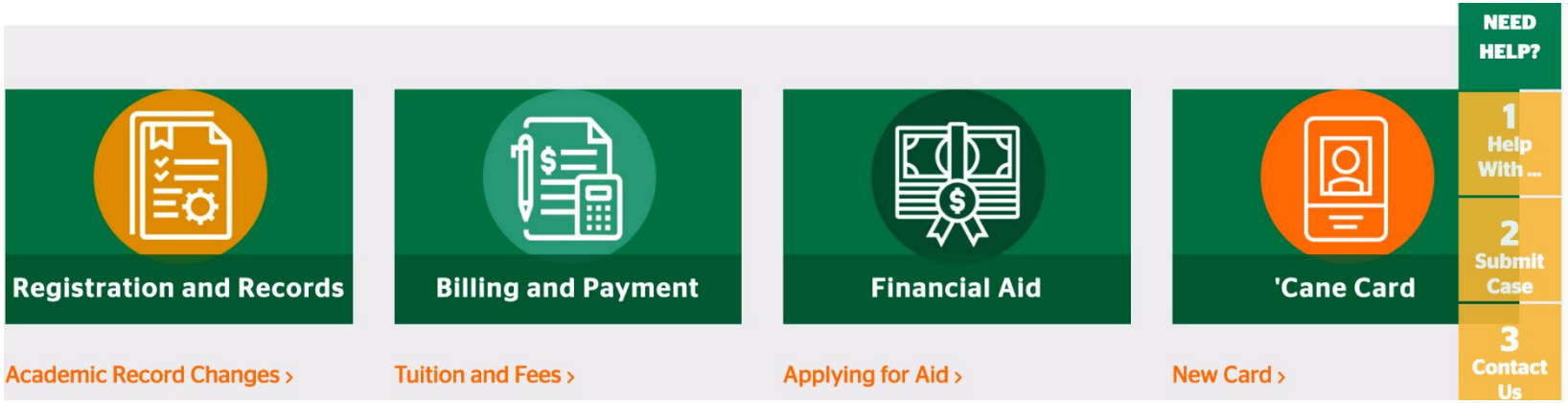
marsci@miami.edu

Through this email the RSMAS Undergraduate Office communicates the following:

- Research Opportunities
- Internship Opportunities
- Employment Opportunities
- Important Program Information and Deadlines
- University/RSMAS Events
- Advising Schedule for Registration



Canes Central

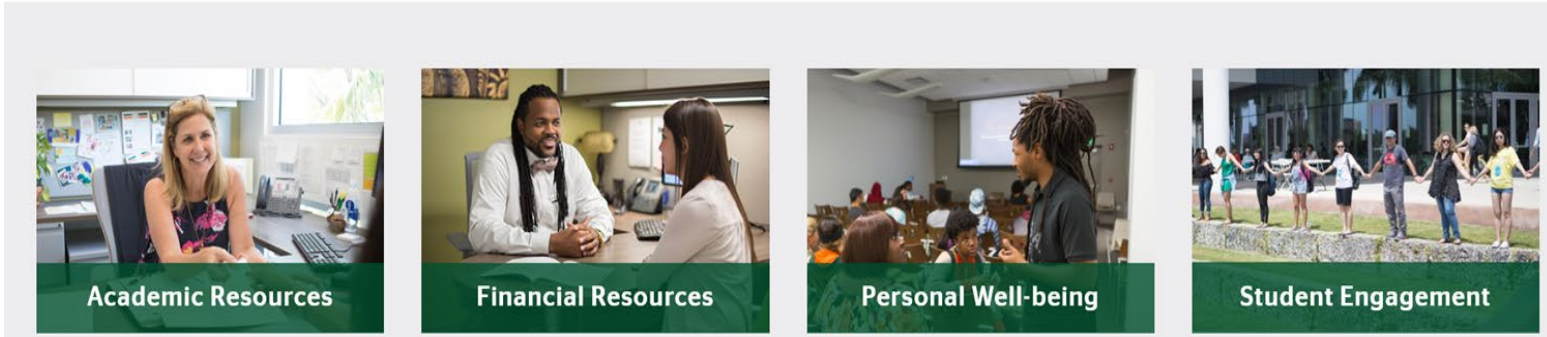


https://canescentral.miami.edu/index.html

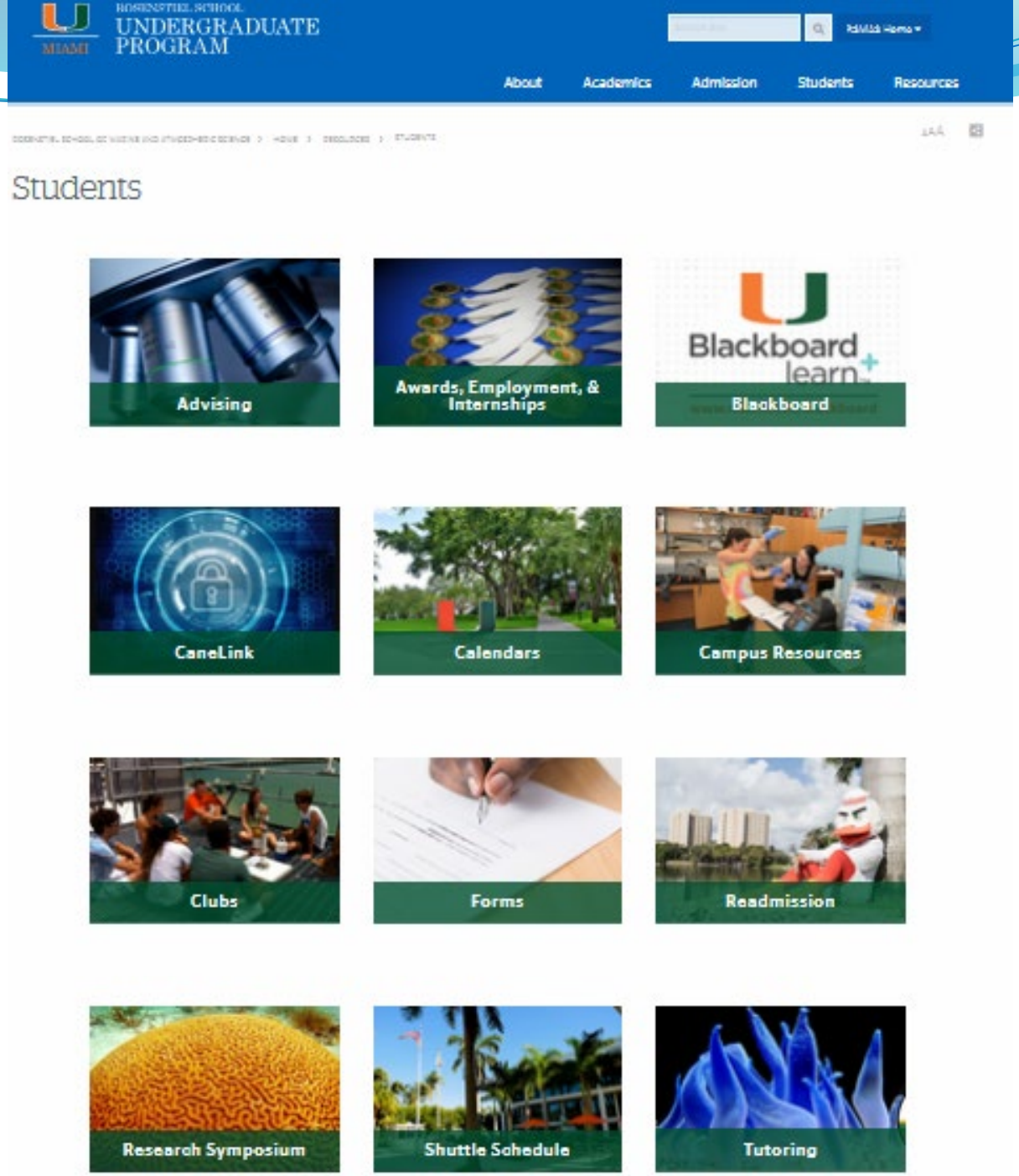
Canes Success

https://success.miami.edu/

Located on the second floor of the Whitten University Center in “The Nest”
Financial Aid and Student Employment are in the same location



RSMAS Undergraduate Student Resources



Tutoring: don’t wait until it’s too late!

Math: The **Math Lab** (located on the first floor of the Richter Library Learning Commons) has free tutors that can review concepts and help clarify assignments, help you understand concepts that the instructor has already presented in class, provide you with additional examples and practice problems, and help you understand the textbook and other materials, and utilize the information.

English: The **Writing Center** (located in the Richter Library Learning Commons) at the University of Miami offers free, one-on-one assistance with all types of writing concerns. Located at the University of Miami Learning Commons in Richter Library, the Writing Center can help you at any stage of the writing process, from brainstorming to final revisions.

Camner Center: The **Peer Tutoring Program** currently has over 100 peer tutors knowledgeable in various subjects, both undergraduate and graduate. Each student may request up to two (2) hours of tutoring per current enrolled subject per week at no cost. Tutoring can be scheduled in the Camner Center or in the Richter Library Learning Commons.

Graduate-Undergraduate Mentoring Program

New Program Started in Spring 2021

Do you have questions about graduate school, entering the science field, post-graduation options, etc.?

Marybeth Arcodia

COVID-19

- For answers to COVID-19 related questions
  visit: https://coronavirus.miami.edu.
- For answers to questions concerning student testing and reporting
  visit: https://studenthealth.studentaffairs.miami.edu/covid-19/index.html.

Cognate Information

A major, a minor, or a group of at least three courses, for at least nine credit hours, that share a theme or focus determined by the faculty. Cognates are required in three areas:

- People and Society
- Arts and Humanities
- STEM: This Cognate is fulfilled by a RSMAS Major.

Other FAQ's

*Minors or add'l majors fulfill cognate requirement

- Students entering with 30+ credits may take 1 cognate as Individualized cognate.

For more information visit:
Cognates.Miami.edu

R/V F.G. Walton Smith Cruises

- Partake in a cruise on an active research vessel
- Assist with multiple ongoing research projects
- October 3rd, November 6th and 7th

Study Abroad

- While most students Study Abroad during sophomore or junior semesters, it's not too early to think about.
- UM faculty offer semester on location programs: UGalapagos, UPrague, UParis, UCapeTown, UBuenos Aires, UShanghai…
- Semester abroad programs in English or a foreign language around the world. Australia, UK, and Iceland are the most popular destinations for RSMAS students.
- Summer or spring break trips offered by RSMAS, other UM faculty, and other institutions
- Look at the study abroad website and visit their information session

UGalapagos

- UGalapagos program for MSC is offered both semesters. The 2020-2021 academic program was cancelled because of COVID but we are a go for Fall 2021.
- Full-semester program (12 weeks) taught on site in Galapagos by RSMAS faculty
- Students housed with local families In town of Puerto Villamil, Isabela Island
- Courses have included:
  - ✓ Marine and Terrestrial Ecology, Geology of Volcanic Islands, Conservation Biology
  - ✓ Marine Mammals, Political Ecology
  - ✓ Oceans and Climate …
- Community Service Component

Important Dates

- **Friday, August 20th –**

All day	Meet with Advisors
11:00 – 1:00pm	RSMAS Student Organization Fair (Ungar Student Lounge, 2nd floor)
3:00 – 5:00pm	RSMAS Freshman Student Mixer (Lakeside Village Sand Volleyball Courts)

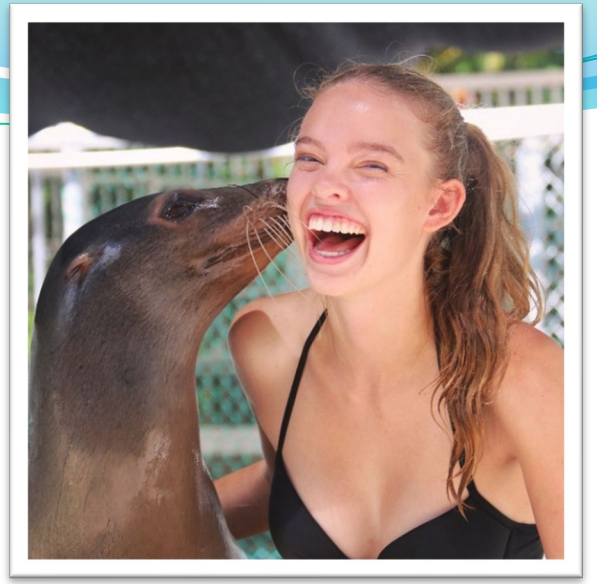
- **Monday, August 23rd -**

  First day of classes!!

RSMAS STUDENT ORG FAIR

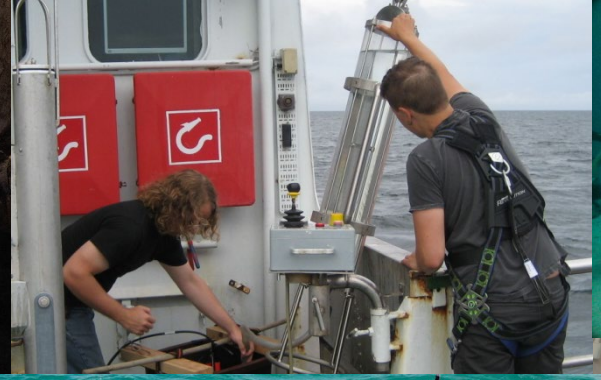
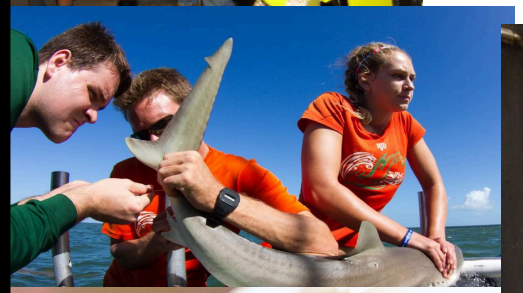
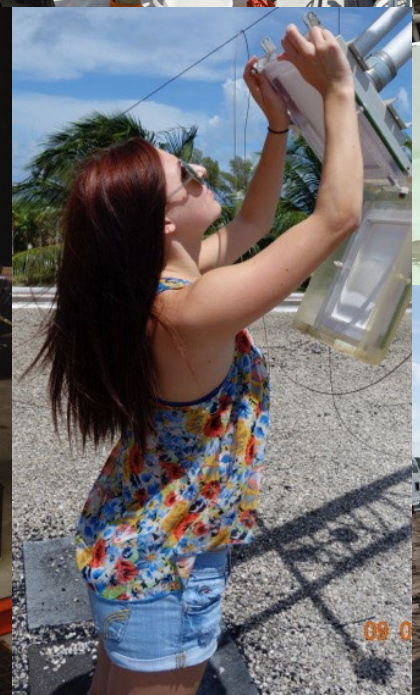
11:00 AM -1:00 PM on August 20

RSMAS Student Organization Fair



Check out these organizations at the RSMAS Student Organization session tomorrow from 11am-1pm!

- RhoRhoRho Marine and Atmospheric Honors Society
- American Meteorological Society Student Chapter
- Marine Mammal Rescue Team
- Free Diving Club
- Aquarium Club
- Climate Change Club
- Scuba Club
- Sigma Gamma Epsilon



Undergrad Research at RSMAS