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[UWF Alumna Named Woman of the Year in Technology](#)

By Megan Tyson, University Marketing Communications

Working to troubleshoot an antenna that's going to orbit our planet or personally mentoring an up-and-coming engineer, it's no wonder Theresa Brunasso, '82, was named "Woman of the Year in Technology" by the Georgia-based organization Women in Technology (WIT). With an unwavering commitment to the professional development of women in engineering, the University of West Florida alumna has more than 30 years of experience in electrical engineering and serves as director of Technology Development at EMS Technologies.

"It was an amazing feeling to receive the award," said Brunasso. "It felt great to be among female chief executive officers and presidents of companies. I'm fortunate enough to get the opportunity to build things that go into space and land on Mars. I love what I do."

Playing an integral role in the advancement of EMS Technologies' Defense and Space Systems Engineering, Brunasso provides innovative designs and development expertise for radio frequency, microwave and millimeter wave components and subsystems for use in satellite communications and military applications. She recently led the EMS team to win the first space antenna contract with the Jet Propulsion Laboratory, the lead U.S. center for robotic exploration of the solar system. EMS's Ka-band antenna will be used to land the Mars Science Lab on the Red Planet next year.

"For this project, there's only one window every 26 months because of the relative orbits of Earth and Mars," said Brunasso. "Physics is hard. The universe is unforgiving and there are always challenges with making projects work."

Brunasso began her career with the U.S. Navy as an instructor at the Consolidated Naval Electronic Warfare School in Pensacola. Grateful for the UWF programs and professors that helped her realize future career options, Brunasso pursued her undergraduate degree at UWF taking advantage of the flexibility the Physics program offered. After UWF, she went on to earn her master's degree in electrical engineering from the University of Utah.

"UWF is an incredibly supportive environment," said Brunasso. "I wouldn't have gone to graduate school if I hadn't received the encouragement from my UWF professors. They worked with my schedule, consistently gave me guidance and the confidence I needed."

In her current role working for EMS Technologies, she strives to reach out to young female students to give them the same type of guidance that she received from UWF. Participating in several outreach organizations, Brunasso has given her time to provide ongoing guidance to undergraduate and graduate students by volunteering for MentorNet, a nonprofit e-mentoring network for diversity in engineering and science. Reaching out to students of all ages, Brunasso also works with high school students through seminars and careers days and volunteers her time with local elementary schools inspiring the next



Theresa Brunasso

generation of female engineers.

“Women are only 10 percent of the population of engineers and I would like to see that change,” said Brunasso. “It’s important for young female students to see women in the field so they can consider it an option for them.”

Learn more about UWF’s School of Science and Engineering at uwf.edu/sse. Visit UWF’s Physics program Web site at uwf.edu/physics. To find out more about EMS Technologies, visit ems-t.com.

For Love of the Fish

By Megan Tyson, University Marketing Communications

If you have a question about fish, Will Patterson, University of West Florida associate professor of [Biology](#), is the man to ask. Patterson grew up fishing in Virginia. He now teaches marine biology, dedicating his career to the study of underwater inhabitants. Educating students and the community about the ecological processes that drive our region’s ecosystems, Patterson has many ongoing research projects, teaches several courses and labs and works with directed independent study students and several UWF graduate students.

“One of my favorite things about teaching is that I get to talk about fish all day,” said Patterson. “The students in our program are sharp, attentive and demand quality instruction.”

Population Dynamics of Fish

Researching commercially and recreationally exploited fishes, as well as non-targeted species, Patterson examines population dynamics to gain an understanding of the ecological effects of fishing on ecosystems. Patterson is able to estimate the age and growth of a fish by examination of growth rings laid down in otoliths, which are hardparts used in the hearing and balance system of fish and lay down growth rings similar to trees. He also uses otolith shape and chemistry as natural tags, as well as artificial tagging approaches, to examine population structure and connectivity in a variety of fishes.

Examples of ongoing studies include:

- Examining growth and nursery sources of gray snapper along west Florida.
- Examining population connectivity in red snapper from west Florida through Campeche, Mexico.
- Estimating growth and migration patterns in king mackerel.

“For fisheries, the northern Gulf of Mexico, including Northwest Florida, is one of the more productive regions in the country,” said Patterson. “This region has been referred to as the fertile crescent. Due to the influence of the Mississippi River, there are a lot of nutrients fueling the system and there are a diversity of habitats and fish to study. Students, collaborators and I are working on projects that deal with coastal migratory fish and reef fishes like red snapper and gag grouper.”

King Mackerel Research Projects

One of Patterson’s most recent projects has involved a cooperative research approach to estimating population dynamics and stock mixing in king mackerel, a migratory species most commonly found in the western Atlantic Ocean and Gulf of Mexico. Patterson and Kate Shepard, a UWF graduate student who recently defended her master’s thesis, used population dynamic techniques to estimate the rate at which the populations are mixing during the winter off the coast of South Florida. Ultimately, their research will influence future management decisions aimed at conserving this ecologically and economically valuable species.

Gearing up for his next project, Patterson will use next generation pop-up satellite archival tags to examine migratory pathways and population connectivity in Gulf of Mexico king mackerel. The sensors, which store information on flash memory, record cycles of daylight and water temperature to estimate oceanographic effects on fish movement and predict locations of the fish.

“We’re hoping to find out how vulnerable these fish are to large scale Mexican fisheries,” said Patterson. “To find out where a fish is located in the ocean every day in a year is pretty powerful information, and we hope to use this new technology in future projects.”

Learn more about UWF’s Biology and Marine Biology programs at uwf.edu/biology.

UWF Alumna Working on Wall Street



Will Patterson

By Megan Tyson, University Marketing Communications

Kim Mustin, **B.A. Accounting**, '90, went from walking the campus pathways of the University of West Florida to navigating the streets of New York City. Mustin, who had an affinity for tax class and a drive for accounting, used her UWF degree to make her own path. She now works for one of the largest banks on Wall Street, Deutsche Bank and is the head of Key Accounts for the Financial Institutions Group.

“It was the professors at UWF who really pushed me and made me strive to be my best,” said Mustin. “It really shows the powers teachers have to make you realize what you want do try to do with your life and the tools you need to get there.”

Mustin also has a leading role with Deutsche Bank’s Financial Institutions Group, which sells asset management solutions to other financial institutions. The group’s mandate is to work with companies like Hancock, Prudential and Fidelity to provide them with financial solutions for their businesses. This can involve many different types of financial instruments from mutual funds to structured products and derivatives to commodities and currency transactions.



Kim Mustin

“Lately the shoes I’ve been wearing are track shoes,” said Mustin when asked about a day in her shoes. “The markets have been moving really fast and there is a lot going on. Some of the key responsibilities I have are setting the strategy and tempo for my team, interfacing with senior level client relationships and growing and developing the talent that we have.”

Mustin joined Deutsche Bank in 1999 after nine years of industry and regulatory experience including consulting for mergers and acquisitions at State Street Global Advisors, both retail and institutional consulting services at Putnam Investments and serving as a former U.S. Treasury Agent.

“This business is not for the faint of heart,” added Mustin. “We put in a lot of hours under constant pressure and always try to make sure we are making the most rational decisions. It’s imperative to find a work/life balance since many of us are mothers, daughters, etc. and that keeps us grounded in reality.”

Growing from lessons she learned in college, Mustin participated in numerous campus organizations and found time to volunteer for organizations like Big Brother, Big Sister. A Northwest Florida native, she found a collegiate balance juggling school, work and campus life and was one of the first in her family to graduate from a four-year university.

“I had always been driven towards education and knew that I wanted to do something very big,” said Mustin. “Even though I wasn’t sure exactly what that would be, I tried to pursue those goals to find it out.”

“For students looking to pursue this industry, they have to be able to come to the table with more than just good grades,” added Mustin. “Involvement in organizations and demonstrated leadership skills are always the way to show employers that you are willing to challenge yourself.”

To find out more information about programs offered through UWF’s College of Business, visit uwf.edu/cob.

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