Million Dollar Gifts Will Benefit Student Scholarships and Fellowships

Two new endowments established by friends of the university will provide substantial support for undergraduate and graduate students.

When Carl Bottcher introduces himself as a painter, people want to know where they can view his work. "In what gallery or museum?" they ask. Bottcher is likely to chuckle in response. His work, or more properly the work of three generations of Bottchers, can be seen inside corporate headquarters, gracing churches and covering the walls of palatial residences throughout the greater Boston area of Massachusetts. His company's canvas is the towering lobbies and entryways, the ceilings and the walls of some of New England's most well-known public and private spaces, and by any measure Carl Bottcher is a successful and enterprising entrepreneur.

Like many entrepreneurs, Bottcher's business began when he set out to do what he knew how to do best: paint.

An entrepreneur, a tradesman and a music lover, Carl Bottcher was educated at a college outside of Atlanta and worked for Lockheed before he was drafted and sent to Angoulême, France. There he worked on billeting American officers who were arriving on the continent, and on occasion, receiving letters from a young woman named JoAnn that he'd not yet had the pleasure of meeting. Back in Massachusetts Carl began courting JoAnn and embarked upon a five-year painting apprenticeship in the family business under the watchful eye of his father who was quick and tireless when it came to correcting his son. "My Dad was a perfectionist and had an incredible work ethic," Bottcher recalls. "He never missed a day."

With the entrepreneurial skill to start his own company, Carl Bottcher set out on his own just as his grandfather had when he brought the trade from Sweden to Worcester. Keeping alive

Dr. Lawrence and Margarete Mertens have spent much of their lives exploring new places, surrounding themselves with objects that they love, and contributing of themselves to make the world a better place. There is a deep appreciation for the visual in their lives as revealed by a home steeped in memories of travel to exotic places and dives to the depths of the ocean. Hand-wrought African and Polynesian masks adorn the walls and stunning shells and artifacts plumbed from underwater caves are expertly displayed and lit behind glass. On one display case sits an antique brass diving helmet in impeccable condition that Margarete bought for her husband's birthday. In their home office hangs an impressive Highwayman painting. Opposite it is a signed photo of a blue hole dive with Astronaut Buzz Aldrin. The visual world also figures prominently in the professional life of Dr. Lawrence Mertens. He is credited with numerous studies critical to the understanding of underwater vision and how laser technology can be employed to extend it. He pioneered the science of optical oceanography (quite literally writing a textbook on the subject and developing Florida Tech's course). His early work in image enhancement technology and his experience with missile range instrumentation helped with the recovery of the Space Shuttle Challenger's booster rocket and crew cabin after the explosion over Cape Canaveral.
the spirit of the Bottcher name he eventually outpaced and outlasted the family business and built what is today one of the most respected painting businesses in the greater Boston area.

Bottcher’s life as an entrepreneur put him in the right place at the right time. There was Peter Grace’s New England residence to be painted, Norton Company’s buildings in Worcester and Fidelity Investments headquarters in Boston where Bottcher received investment advice from Peter Lynch, the head of the Magellan Fund.

“I had the good fortune to meet key people who gave me great advice,” Bottcher says. “Peter Lynch was the person who advised Warren Buffet to give away his fortune and he did the same with me. Use it wisely,” he told Bottcher, “and if you don’t need it, give it away.” Similarly, Bottcher’s father had taught him “everything you take in, isn’t yours.”

JoAnn Bottcher learned from her mother that “if you make it in this world, you are to be generous to others,” and on this she and her husband are in total agreement. The Bottchers share a lifetime enthusiasm for helping young people.

After Florida Tech Trustee Dick Baney talked about Florida Tech with the Bottchers, “JoAnn and I decided we better take a trip over to the campus,” says Mr. Bottcher. “We had always had a great appreciation for the leadership of President Catanese and the extent of what he has accomplished during his presidency, and when we toured the campus, we were very impressed with what we saw.”

“I’ve worked with civil and electrical engineers all my life,” Bottcher said, “so we were interested in the College of Engineering. We toured the Olin Building of the College of Engineering and met the new dean, Dr. Martin Glicksman, who is a member of the National Academy of Sciences. We toured the labs and talked with both faculty and students about the work they were doing and we were so excited by the level of the research, we decided to give a $10,000 gift right away.”

“Eventually we toured every part of the campus—including the archives. We even went to the Senior Design Competition—the work being done was superior to anything else we’d seen. We realized Florida Tech has enormous potential to impact the way we live. Then one day I said to JoAnn, “I’m going to give a million dollars to Florida Tech.”

Through their enormous generosity, the Carl and JoAnn Bottcher Endowed Scholarship has been established and will exist in perpetuity assisting students in the College of Engineering who demonstrate potential for achievement and financial need.

“My Dad gave so much of his personal talent to others and to the world,” says Bottcher. “I want the recipients of this scholarship to give back from their knowledge and talent to society.”

The Bottchers’ generosity has enriched the lives of many children. They recently set up a fund for young people to learn to play golf and they have a long history, born of their love of classical music, of helping young musicians attend the Boston Symphony Orchestra’s residential music camps at Tanglewood including a young girl who desperately wanted to study under Kurt Masur, the noted German conductor. To this day, the Bottchers get teary-eyed speaking about the moving letter the girl wrote to them after attending the camp to express her gratitude and how it changed her life.

It gives the Bottchers great pleasure to think of all of the Florida Tech students as their children. “Some people think I am generous in an outrageous way,” he says with a smile. “But I know that this gift to Florida Tech will bring so much joy to JoAnn and me.” This brings tears to Mrs. Bottcher’s eyes and she nods wholeheartedly.

“It’s what I do,” Carl Bottcher says in the same, doesn’t-everybody-do-this tone that he uses to introduce himself as “just a painter” and his wife uses to proclaim that “she’s nobody special.” They are, in fact, very special to most everybody they turn their radiant smiles upon. And in fact, everything they do is quite special.
Starting his education at Columbia University, Mertens decided to pursue electrical engineering. He worked his way through Columbia and was fortunate to receive financial help in the form of an RCA Scholarship and BOSE and Bridgeham Fellowships to complete his doctorate. Dr. Mertens went on to work for RCA and was eventually transferred to the Space Coast to work on instrumentation for the Missile Test Range. This gave him an opportunity to participate in the exciting new space and missile programs as well as easy access to his favorite pastimes of fishing and diving. He was appointed RCA’s chief scientist. It was here where he first met and worked closely with Dr. Jerome Keuper, Florida Tech’s founding president.

After Jerry Keuper moved to Florida Tech on a full-time basis, Mertens says, “Jerry called me one day and asked me to teach a course on marine biology.

Thus began the journey that would see Mertens’ professional expertise intersect with his love of scuba diving many times over the years. Dr. Mertens explains, “At that time the underwater world was expected to become the next frontier. Jerry Keuper asked me to conduct an FIT summer field course in the Bahamas on underwater photography,” recalls Mertens, “and that led to the first published text attributed to a member of the Florida Tech faculty. I spent a great deal of time preparing the course notes and one of the students, who worked for Kodak at the time, shared my notes with the Kodak director of research who was also a consulting editor for Wylie Interscience Publishers.” The textbook *Underwater Photography* was published in 1970.

Dr. Mertens’ professional life included pioneering work with the Defense Advanced Research Projects Agency (DARPA). The Range Measurement Laboratory at Patrick Air Force Base was selected by DARPA to manage a program code-named “Deep Look,” which was charted to determine the limits of vision in the ocean. A large ocean-going barge was instrumented with the latest oceanographic, optical and digital processing equipment and was stationed at Andros Islands in the Bahamas on the United States Navy’s Atlantic Undersea Test and Evaluation Center (AUTEC). The project lasted about 5 years and most of the work was conducted after dark. This gave Mertens the rare opportunity to photograph and collect marine specimens during the daytime from the pristine barrier reef along the Andros shore.

One development linked to Deep Look and eventually published in scientific journals was the formulation of a new method of predicting image propagation underwater. Interestingly, the mathematical method involved a two-dimensional version of a one-dimensional method commonly used by electrical engineers. Mertens was awarded honorary mention for one of his journal articles by the Society of Motion Picture & Television Engineers. First prize that year went to the inventor of the laser.

Mertens was adjunct professor of oceanography for many years—teaching both graduate and undergraduate courses. Since retiring from RCA in 1990, he and his wife have had the opportunity to travel to the far corners of the world; visiting over 150 countries and all seven continents. They have explored the Galapagos Islands, Machu Pichu, the Nasca Lines and the Amazon River.

The Mertens have collected many natural and man-made objects from their travels. They recently gifted a portion of their shell collection, comprised of hundreds of present day and fossil shells from the Caribbean, to the university. This exquisite collection of shells will be on exhibit in the Department of Marine and Environmental Systems. They have also donated one of their works of art in memory of their late son Oliver who studied at Florida Tech in the 1980s. It is a very large photograph titled “Tranquility” by Peter Lik. See “Tranquility” at bottom.

Over the years, the Mertens remained connected to the university through Florida Tech’s Executive Vice President and Chief Operating Officer Dr. T. Dwayne McCoy. “We are very impressed with the university’s development from the tiny Brevard Engineering College we knew in the 1960s,” says Mertens, “and established an endowed fellowship at the million dollar level at Florida Tech because we believed it would aid this effort in the future.”

The Lawrence and Margarete Mertens Endowed Fellowship Fund will have an enormous impact on the lives of graduate students in the College of Engineering who are selected to benefit from the fellowship in years to come. Awardees will be selected based upon their potential for achievement, showing of significant promise and their limited financial means.

“We’d like to see the fellowship given to someone who works hard and has the potential to make a real contribution to their field,” Mertens says. “We hope it will help someone who will make the world a better place in some way.”

Through their enormous generosity assisting untold numbers of future graduate students, the lives of Lawrence and Margarete Mertens are the best examples of what makes the world a better place.

“Tranquility” by Peter Lik has found a home in the new Bisk College of Business building. Photo by Dominic Agostini.
An Opportunity for Every Talented Student

All great universities seek to enroll an extraordinarily able and talented pool of students, and every year Florida Tech is fortunate to be able to offer some level of financial assistance to 76% of the university’s students.

However, the university is only able to fully meet the needs of approximately 30% of the students who qualify for financial aid, leaving more than 1,700 enrolled students to finance a significant portion of tuition and costs. And every year talented and high-achieving students make the choice to enroll elsewhere, or not enroll in college at all, based solely on family finances.

Imagine the benefits to individual students, their families and our community if we can eliminate the financial barriers so that a greater number of these high-achieving students could attend Florida Tech? A recent study by the Council of Independent Colleges found that private doctoral institutions like FIT “substantially outperform all other types of institutions in that 63% of the students who begin STEM degrees stay in STEM fields.”

“I came into my own at FIT. The university gave me the confidence to become involved —my professors got me into a research group in my freshman year and that has made me successful. I would never dream of doing that at a large school. FIT changed my life.”

Flaminia Marrucci ’14

The investment a scholarship donor makes in FIT’s students results in a high degree of success. Today’s students are the innovators, entrepreneurs and scientists of the future. The work that they pursue—from autism research to exploration of energy alternatives to development of cybersecurity solutions has the potential to impact the quality of life in Florida and for people around the globe.

Scholarship funders have an enormous opportunity to make a difference in many lives, one scholarship recipient at a time. Gifts of any size may be made to the general scholarship fund and gifts of $25,000 or more may establish a named endowment fund which will help students in perpetuity. For more information on how to make a gift for scholarships, please call (321) 674-8962 or visit the campaign website at CreateTheFuture.fit.edu.