

The Sciences at Eckerd College

Perspectives (1958-2007)

Eckerd College is a small private four-year liberal arts college on the west coast of Florida in St. Petersburg. Founded in 1958, as Florida Presbyterian College, the institution has a strong history of graduating scientists who go on to obtain advanced degrees. Because of its location on Boca Ciega Bay, it has also had a natural affinity towards marine science and environmental studies.

Eckerd College opened its doors in 1960 in downtown St. Petersburg. Sheen Science Complex was completed in 1964, just in time for the first graduating class of the college. Irving Foster, the first Chair of the science department wrote in 1967 that the science program had already received over \$200,000 in grants since it's founding, and had six graduates receive a National Science Foundation Fellowship. He also proudly recounted that over 90% of all its early science graduates were pursuing graduate studies. At the end of the same year Time Magazine proclaimed Eckerd "A college that has grown from vacant lot to excellence in just six years." From these beginnings Eckerd continues to produce high-powered graduates. The college has been featured in the book *Colleges That Change Lives*, (Loren Pope 1985 and 2006) in which Pope states that Eckerd produces an unusually high rate of students in the sciences who continue their education to earn doctoral or medical degrees. We continue this trend today, with over a hundred(?) graduates who have earned MDs or PhDs. The



Sheen A, finished 1964



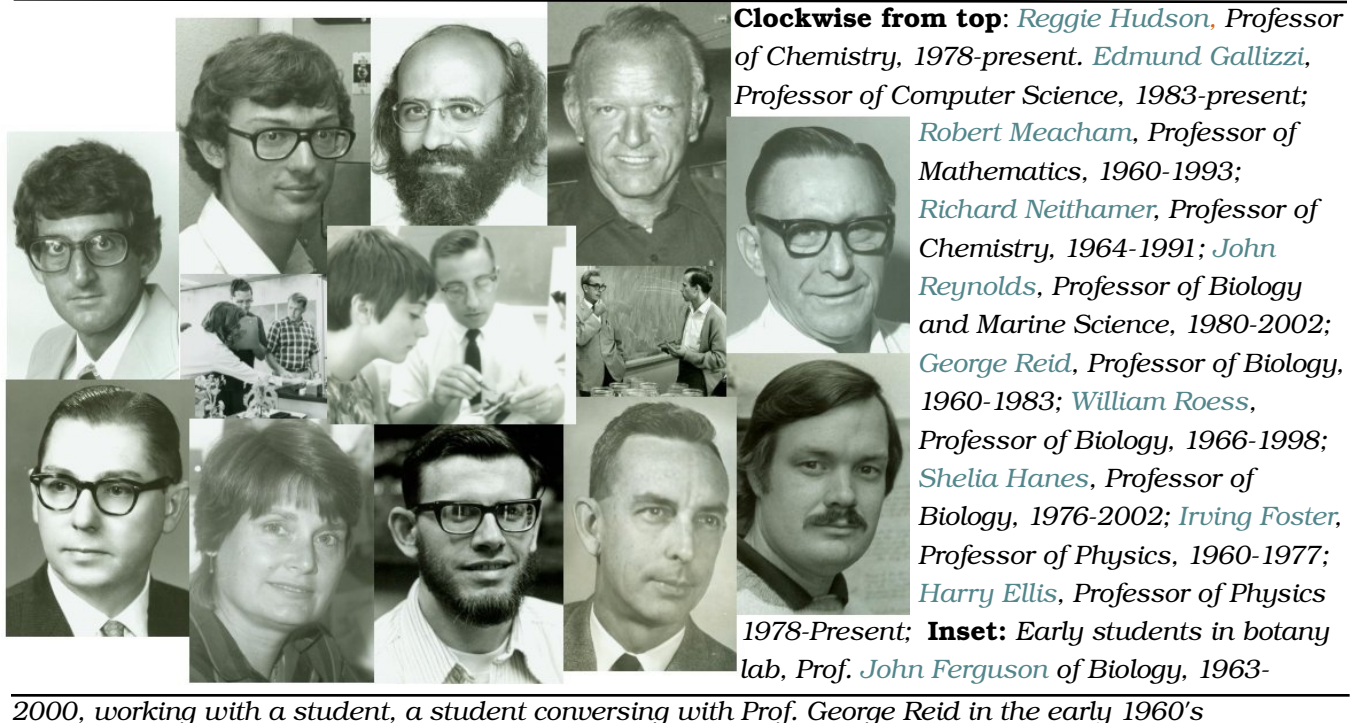
Galbraith Laboratories, built 1995



next wave in Eckerd Science began in 1983: the marine sciences program. This program was a natural addition to our college due to Eckerd's waterfront location and strong science record. The immense popularity of this program led to the construction of the Galbraith Marine Science Building in 1987. Eckerd is one of only ___ undergraduate institutions in the nation with a marine science degree, and certainly a rarity among liberal arts colleges for this reason. In 1995 an interdisciplinary environmental studies program was developed, a program that has since become almost as popular as Marine Science. In 2007 Eckerd graduated over 100 students in the sciences in biology, biochemistry, chemistry, computer science, environmental studies, marine science, mathematics, and physics. The over thirty-five members of the natural science faculty are dedicated to teaching, mentoring, and doing active research with these students as they continue the storied tradition of this fifty year young institution which is poised to take the next step in its science evolution.



Since its beginnings, Eckerd science faculty who have dedicated their careers to the betterment of the college science program. Here are some who helped define Eckerd's first 50 years:



A few anecdotes of the early college of natural sciences

A few of the early biology and pre-med students volunteered to sleep on hammocks in Slater's Woods because their dorms were not finished. This strengthened their scientific inclination and they were really happy out in the environment and enjoyed "phylum eatoffs." Most of these students became either PhD's in Biology or medical doctors, recounts Norman Blake, a graduate from 1966 and now a professor of marine science at the University of South Florida in St. Petersburg.

George Reid, the founding biologist, selected the spot of the new Sheen Science Complex right on the water. Unfortunately the dredging of the gulf was overdone by a hard working construction team that wanted to "donate" more land to the fledgling college and so behind the Sheen Science complex, instead of Boca Ciega reclaimed land.



Sheen B Building under construction in 1963

Twenty-five years later the Galbraith Marine Science Laboratory was built on the water to complete the vision of this founding biologist. Many of the original biology classes took advantage of the natural habitat around them. The student laboratories began by going to water's edge, collecting items and then bringing them back to the Sheen Complex into a makeshift recirculating water system, recalls biologist John Ferguson: "many of the laboratories were hands on, we were training scientists, and since the beginning were asked by Dean Bevan to be innovative"

Some prominent Eckerd Alumni: *This is only a sample of our graduates' success after leaving Eckerd College:*

Harvey Jeffries - 1964, chemistry, Ph.D. University of North Carolina at Chapel Hill. A professor of Environmental Sciences and Engineering at UNC-Chapel Hill. He is an advisor on the environment for the State of North Carolina and on air quality for the U.S. EPA.



Roger Porter - 1964, biology, M.D. Duke University. Presently Vice President of Wyeth-Ayerst Pharmaceuticals and retired Director of the National Institutes of Health Center for

Neurological Disease and Stroke, and is one of the leading experts in the world on epilepsy.

George Atkinson - 1967, chemistry, Ph.D. Indiana University. Professor of Chemistry and Optical Science, University of Arizona and has served as the Science Advisor to the U.S. Secretary of State. He is a recipient of a Senior Alexander von Humboldt Award and a Senior Fulbright Fellow Award.



Jane Arbuckle Petro - graduate in 1968, biology. MD Penn State University. She has served as a leader of the Burn Center in Harlem, NY. She currently has appointments to six New York hospitals where she is a surgeon specializing in plastic surgery, burns, and skin cancer.



Marion White - 1974, physics, Ph.D. Massachusetts Institute of Technology. She has served as Division Director at Argonne National Laboratory, and is now one of the technical leaders building the Linac Coherent Light Source being assembled at Stanford

David Conover - 1976(?), biology, Ph.D. University of Massachusetts. He is currently the Dean and Director of the Marine Science Research Center at the State University of New York at Stony Brook where he heads the Conover Laboratory. He was a recent Aldo Leopold Leadership Fellow at Stanford University and was the first recipient of the Mote Eminent Scholar Chair in Fisheries



Ecology.

Steven Updegraff - 1982(?), biology, M.D. Pennsylvania State School of Medicine, Medical Director of Updegraff Vision in St. Petersburg. He has served as both the principal and clinical investigator and surgeon in three clinical research programs including at the University of Texas. He also holds seven U.S. patents for LASIK technique and technology.

Karin M Musier-Forsyth - 1984, chemistry, Ph.D., Cornell University, Postdoc MIT. She was a professor at the University of Michigan until 2007. She is now an "Ohio Eminent Scholar" at The Ohio State University. She is a recipient of the Pfizer Award in Enzyme Chemistry from the American Chemical Society.

Carlos Barbas - 1985, chemistry and physics, Ph.D. Texas A & M, Kellogg Professor and Chair at Scripps Research Institute in where he runs the Barbas Laboratory which oversees the work of twenty scientists on the cutting edge of medical research using microbiology.

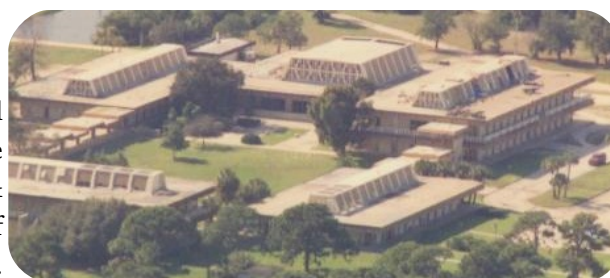
Mark Lewis - 1992, mathematics and political science, Ph. D. Georgia Institute of Technology, He was honored by President George W. Bush as one of America's promising young scientists. He joined Cornell as an Associate Professor in 2005 after teaching Industrial and Operations Engineering at the University of Michigan.

Julie Huber -1998, biology and marine biology, Ph.D. University of Washington. Now a NASA research associate at the Marine Biological Laboratory. She is a recipient of fellowships from the National Science Foundation, the National Research Council and the L'Oreal USA Fellowship for Women in Science



The Next Step...

For the United States to remain competitive in a global economy, we must be able to retain a competitive advantage with regard to innovation in science & technology. This will require that we have a workforce of sufficient size that is well educated and also very creative.



Eckerd, with its short but venerable history of producing strong scientists, is poised to contribute to this next phase of scientific growth.

We are well situated in a BioTech Corridor -- Florida is also evolving into a national center for science & technology:

- * The Scripps Research Institute (Palm Beach)
- * The Torrey Pines Institute for Molecular Studies
- * The Burnham Institute (Orlando)
- * SRI International (St. Petersburg)

Scholarship	Eckerd student winners
National Science Foundation	12 (?)
Goldwater	(?)
Hollings	17

have all recently located in The Sunshine State. These institutes' most important needs will be educated, innovative, young scientists. Eckerd scientists are ready to meet the challenge.



As Eckerd College grows, so do we continue to grow and change. Eckerd College has launched a new capital campaign, with the construction of a new science building as a top priority. Although our accomplishments are proof positive that our current facilities do not bar us from having a premier program, a new science laboratory building will expand our capabilities to train this century's new scientists. We will continue to educate our students in the basic sciences, to prepare them to excel in the competitive world market of science and industry. We must face the reality, however, that obsolete facilities can make even the most successful programs

appear less competitive. Our biology and chemistry laboratories were built in 1963, and they have served the early college well. Now we must recognize that the fields of biology and chemistry have evolved and intertwined in the last four decades. Preparing our students to meet this challenging approach will necessarily require facilities that promote interdisciplinary learning and teaching. The new building will exemplify this paradigm shift to a more quantitative biology interacting with a more interdisciplinary chemistry. Our beloved Sheen Science Complex will be renovated and refurbished for physics, mathematics, computer science, and environmental studies.

Let the newest wave for Eckerd Science begin!

Research Involving Students
Research programs of faculty that involve students include dolphin identification, nuclear physics, sediment dating, turtles, bird nestings, genetics, the development of muscle, environmental chemistry, organic chemistry...

